

**Ideologies and Discourses Underpinning Paradigms of Small-Scale  
Farmer Development:  
A Critical Analysis of State and Non-Governmental Extension  
Support Programmes in uPhongolo, KwaZulu-Natal**

A mini-thesis submitted in partial fulfilment of the requirements for the degree of  
Masters in Philosophy in Land and Agrarian Studies



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**DECLARATION**

I declare that ‘Ideologies and discourses underpinning paradigms of small-scale farmer development: A critical analysis of state and non-governmental agricultural extension support programmes in uPhongolo, KwaZulu-Natal’ is my own work. All other sources, used or quoted, have been indicated and acknowledged by means of complete references. This thesis has not been submitted for a degree at another university.

Sithandiwe Yeni

November 2013



A handwritten signature in blue ink, appearing to be 'S. Yeni'.

Signature

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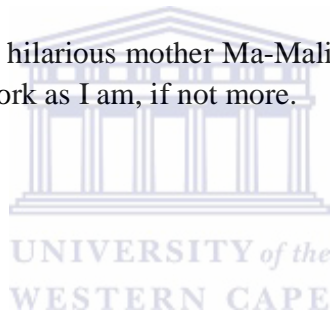
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Lastly I dedicate this degree to my hilarious mother Ma-Malinga Yeni of whom I am such a fan. She is equally excited about this work as I am, if not more.



## **Abstract**

### **Ideologies and Discourses Underpinning Paradigms of Small-scale Farmer Development: A Critical Analysis of State and Non-governmental Extension Support Programmes in uPhongolo, KwaZulu-Natal**

**Sithandiwe Yeni**

**MPhil Mini-thesis in Land and Agrarian Studies**

As a means to reduce poverty particularly in rural areas, the South African government has placed great emphasis on the development of small-scale farmers into becoming commercial farmers. Central to this effort is the provision of agricultural extension support, as reflected in the 1995 White Paper on Agriculture (DOA, 1995), African National Congress (ANC) policy resolutions of 2007 (ANC, 2007) and a 2011 extension recovery plan (DAFF, 2011). Parallel to this policy process, a growing role of non-governmental organisations (NGOs) in supporting small-scale farmers, and criticising the governmental approach is observed. Biowatch is one example of this kind of NGO that, aside from its direct support to farmers, advocates for an alternative approach that embraces ‘subsistence’ farming. The academic literature suggests that existing agricultural policies are too generic and therefore fail to accommodate the different types of small-scale farmers that are found in rural areas, resulting in poor policy impact. This thesis seeks to establish the ideological thinking underpinning two paradigms of small-scale farmer development in South Africa and explores what they look like in practice, while analysing how they produce and reproduce class differentiation, and the emergence of various livelihood trajectories. Through qualitative research conducted in one case study site (the village Emagengeni in Northern KwaZulu-Natal) the views of farmers (beneficiaries of extension support as well as non-receivers) have been elicited and so contribute to a clear picture of what is happening there. In addition, experiences and perceptions of government extension officers, provincial officials and a Biowatch official are taken into account. Theoretically, the study is framed using Cousins’ (2011) class analytical perspectives on small-scale farming in South Africa which distinguish between three types of ‘petty commodity producers’, i.e. (i) petty commodity producers that produce to meet most of their social reproduction needs, (ii) petty commodity producers producing to partially meet their social reproduction needs and (iii) petty commodity producers producing enough to sell and make profit and start to accumulate capital. In addition, the categories described by Dorward et al (2009) in the ‘stepping up’, ‘hanging in’ ‘stepping out’ and ‘dropping out’ theory, are used to analyse the broad types of strategies pursued by poor people. The sustainable livelihoods framework is used to classify the various types of farming households observed. The main argument is that since 1994 the nature of public agricultural support has not met the needs of the majority of farmers in the country, i.e. poorly resourced farmers mostly located in the former homelands. This is because it is trying to make them into something they are not, i.e. commercial farmers and is focused on on-farm productivity and does not address wider market conditions. Although Biowatch demonstrates a more effective response to farmers’ needs, it is limited in its approach to agrarian transformation. The conclusion is that government’s fixation on the commercialisation of small-scale farmers perpetuates the existing and already problematic dualism within the agricultural sector.

## **Key words**

*Agricultural extension, small-scale farmer, agro-ecology, commercial farmer, ‘subsistence’ farming, conventional agriculture, livelihoods, class, food security, Biowatch, KwaZulu-Natal, South Africa*

## Acronyms and Abbreviations

AGRA	Alliance for a Green Revolution in Africa
AgriSA	Agriculture South Africa
ANC	African National Congress
ASGISA	Accelerated and Shared Growth Initiative for South Africa
CASP	Comprehensive Agricultural Support Programme
DAEA	Department of Agriculture and Environmental Affairs
DAFF	Department of Agriculture, Forestry and Fisheries
DBSA	Development Bank of Southern Africa
DLA	Department of Land Affairs
DOA	Department of Agriculture
FAO	Food and Agriculture Organisation
FARA	Forum for Agricultural Research in Africa
GEAR	Growth, Employment and Redistribution Strategy
IDP	Integrated Development Plan
IGDP	Integrated Growth and Development Plan
KZN	KwaZulu-Natal
LVC	La Via Campesina
NAFU	National African Farmers' Union
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organisation
NPC	National Planning Commission
PPC	Provincial Planning Commission
PPEA	Participatory Programmed Extension Approach
SAP	Structural Adjustment Programme
TA	Tshintsha Amakhaya

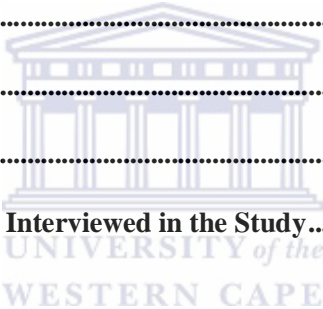
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# CHAPTER 1

## 1. Introduction and Methodology

### 1.1. Introduction

In current-day South Africa there are two opposing views on small-scale agricultural development as a response to addressing poverty, food insecurity and unemployment in rural areas. One of these views embraces conventional farming based on industrial principles, while the other prefers agro-ecology as an alternative. Proponents of the former support increased use of inputs such as fertilizers, pesticides and advanced farming technology in order to get maximum output (Wiggins, 2009), that is, agricultural intensification. The focus is entirely on commercialisation of production as the main goal. The latter is associated with encouragement of those farming practices which re-enforce biodiversity; synergy among plants, soils, animals and water; and conservation of resources such as seeds (Altieri, Rosset and Thrupp, 1998). Here, the focus is on both production for primarily local markets and for own consumption.

This thesis sets out to establish the underlying thinking that determines the nature of agricultural extension support currently available in South Africa through two intervention models, to explore of each their form, practice and targeted beneficiaries, and to ask, as a result of these interventions, what social classes and livelihood trajectories are emerging.

In this introductory chapter I present background information on the two competing paradigms of agricultural development, first looking at the South African context, and then with a wider view that touches on the regional and international perspectives from which South Africa draws influence. I focus on the institutions that support these two models, touch on where their ideas emanate from and explore their intentions. I end the section by moving the focus back to South Africa and on the question of this thesis. The purpose of this chapter is thus to provide an overview of the issues related to the topic of this thesis.

### **1.1.1. Small-scale agriculture development in South Africa: What is the dominant thinking, and what are the forces behind it?**

The South African government has called for support for smallholders to move from subsistence to commercial farming by adopting new technologies such as improved seeds and fertilizers in order to increase productivity and improve market access (DOA 2001b). Since 1994 the ruling African National Congress (ANC) has taken the position that scientific farming is the answer to food crises (Bernstein 2013). This view is well articulated in the Strategic Plan for South African Agriculture of 2001b, in which then national Minister of Agriculture Thoko Didiza indicated that the vision for a non-racial sector is geared towards providing food and agricultural products to South Africa, the continent and the world at large (DOA 2001b). The task team to spearhead this new vision included agricultural unions the National African Farmers' Union (NAFU) and Agri South Africa (AgriSA), and it was to be achieved by increasing commercial production and building international competitiveness (DOA 2001b). The strategic plan further indicates that to implement this vision implies that research, extension, and education should also be transformed to be more responsive to markets. Central to this vision is the identified need to address the historical racial injustices that resulted in a bifurcated agricultural sector comprised of privileged white-dominated large-scale commercial farms and poorly resourced predominantly black small-scale farms (Mbongwa, Van den Brink and Van Zyl 1996).

The state's position on the commercialisation path was further re-enforced during the ANC conference in Polokwane in 2007, where rural development and agrarian reform discussions were of high priority with a focus on promoting smallholder farmers to become commercial producers (Greenberg 2010). During its 2007 Polokwane conference the ANC resolved to:

*“Build stronger state capacity and devote greater resources to the challenges of rural development, land reform and agrarian change. In particular to implement large-scale programmes to establish new smallholders and improve the productivity of existing small-scale and subsistence farmers and to integrate smallholders into formal value chains and link them with markets.”*(ANC 2007:5)

However Greenberg (2010) indicates that resources to realise this shift remain constrained and, given their heterogeneous nature, it is not clear which categories of smallholders are to be targeted.

### **1.1.2. What is the thinking beyond the borders?**

Commercialisation of small-scale farmers through conventional agriculture is not exclusive to South Africa but many other African states are pursuing the same pathways. The Framework for African Agricultural Productivity aims to boost agricultural growth by six percent by increasing productivity, which implies a move from 'traditional' to 'modern' agriculture (FARA 2006). This initiative, a collaboration of the African Union, New Partnership for Africa's Development (NEPAD) and Forum for Agricultural Research in Africa (FARA), represents the views of African leaders who see agriculture as an engine for economic development (FARA 2006). Another initiative is the Alliance for a Green Revolution in Africa (AGRA), including countries like Malawi, Zambia, South Africa, Tanzania and Mozambique, and established precisely to transform rural poverty by increasing productivity of smallholders through the uptake of improved seeds and inputs (AGRA website). AGRA aims to learn from the previous Green Revolution in South and Southeast Asia, and focuses on getting high-yielding seeds to farmers, and providing soil improvement technologies. It also aims to facilitate access to international markets and build strong farmer organisations. The previous Green Revolution which took place during the 1970s has been praised by some for its effectiveness in increasing productivity despite population growth. Its perceived success has brought those same celebrants to believe that the global food crisis of 2008 called for a next Green Revolution (Pingali 2012).

While the partial success of the first Green Revolution was due to the genetic improvement of crops, its limitations were not caused by the technology itself, but by the policies that were used to promote agricultural intensification in these countries, with exclusion of their marginalised areas (Pingali 2012). Pingali (2012) acknowledges that the Green Revolution was focused on intensification in favourable areas and had little ambition to contribute to poverty reduction in marginalised areas. Where it did succeed in improving aggregate output, it also increased social differentiation among farming classes. Commentators like Altieri et al (1998) believe that the Green Revolution did more harm than good: biodiversity was lost, agricultural land was

damaged and farmers were forced to rely on purchased inputs which many of them could not afford.

Havnevik et al (2007) explain that the World Bank has a long history of supporting small-scale farmers. In fact, they argue, Structural Adjustment Programmes (SAPs) were implemented on the argument that removing state regulation of agricultural markets and trade barriers was needed in order to create the correct set of market incentives for African small-scale farmers. The vision of the World Bank, as projected in some World Development Reports and especially that of 2008 focused on agriculture, is the industrialisation of rural Africa through agricultural production, which would enable the accumulation of surpluses for investment elsewhere and thereby the creation of non-agricultural industries (Havnevik et al 2007). However, the intentions of the World Bank remain ambiguous: on the one hand the institution claims to support small-scale agricultural development, yet on the other hand it is responsible for the SAPs which means less public spending on small-scale farmer development (Akram-Lodhi et al 2009). In reviewing responses to the World Development Report of 2008, Akram-Lodhi et al (2009) highlight two strands of critiques: one aired by activists and NGOs arguing for investment in local agriculture to promote food sovereignty; another led by the Nordic African Institute which argues that the peasantry is gradually disappearing and people in the rural areas are becoming more dependent on off-farm livelihoods.

A growing number of Non-governmental Organisations (NGOs), food activists, small-scale farmers, local social movements, researchers and scholars, with influence from the transnational agrarian social movement La Via Campesina (LVC), challenge the conventional path in favour of agro-ecology (Rosset et al, 2011). While for some academics and researchers, agro-ecology refers to the science that seeks to understand how agro-ecosystems work, for agro-ecology practitioners such as NGOs and farmers it is about farming methods based on principles that govern food production without using agrochemicals such as fertilizers, pesticides and improved seeds (Rosset et al, 2011).

For members of social movements like LVC, agro-ecology is founded on a set of social, political and cultural principles. LVC sees agro-ecology as a tool to transform the entire food system under the banner of food sovereignty, which aims to increase autonomy from input markets by

giving peasant families more control over their food production system (Rosset and Martinez-Torres, 2012). Food sovereignty is defined by LVC as,

*“The right of peoples to define their own food and agriculture; to protect and regulate domestic agricultural production and trade in order to achieve sustainable development objectives; to determine the extent to which they want to be self-reliant; to restrict the dumping of products in their markets; and to provide local fisheries-based communities the priority in managing the use of and the rights to aquatic resources. Food sovereignty does not negate trade, but rather, it promotes the formulation of trade policies and practices that serve the rights of peoples to safe, healthy and ecologically sustainable production”.* (La Via Campesina, 2007).

La Via Campesina sees food sovereignty as a logical condition to enable food security to exist, as their position is that internal political arrangements are integral to food security (Patel, 2009). On the other hand, “food security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2008). Components of food security are thus (i) availability which is based on productivity, (ii) physical and economic access based on the ability of the household to access (markets) and purchase (income) and (iii) utilization which has to do with the nutritional value of food (FAO, 2008).

Patel (2009) suggests that one of the shortcomings of the food security definition is that it lacks the political and social control of food. This has led to a focus on the intensification of production, through industrial agriculture, a process that also displaced peasants in various agrarian societies across the world. While sympathetic to the food sovereignty ideology, Patel (2009) however points out that there are limitations in the definition suggesting that it is broad and represents various groups with different needs and thus lack consistence.

Scholars like Bernstein find the objective of increased autonomy too far-fetched, and warn that it romanticises the concepts of peasants and family farming (Bernstein, 2013). Bernstein suggests that small-scale farmers should be viewed as ‘petty commodity producers’ who run small capitalist enterprises (Bernstein, 2013). Agro-ecology is viewed by its proponents as the better option for poorly resourced farmers because it requires low cost inputs such as animal manure,

and farmers are encouraged to use open-pollinated seeds which they are able to conserve, so avoiding their reliance on external industrial inputs. In addition it is based on local knowledge which is specific to the local context of the farmers. For instance, depending on the type of soil and climate, some areas may require the use of green manure to fertilize the soil while in other areas animal manure could be more suitable (Altieri and Nicholls, 2008). Altieri (2009) suggests that a move towards a socially just and environmentally friendly type of agriculture such as agro-ecology would require a coordinated international effort, pulling together various social movements in the rural sector and civil society organisations, to put political pressure on various governments. Cuba is one of the countries that demonstrate a successful transition from conventional agriculture to agro-ecology. With the economic crisis in the early 1990s, when the United States government tightened trade relations, Cuba could no longer import food or machinery and the government had to come up with an alternative plan. The country then took a political decision to promote alternative agricultural production techniques (Febles-Gonzales et al, 2011).

### **1.1.3. How great or small is influence from abroad?**

In South Africa, NGOs such as Biowatch emulate the worldview of LVC by focusing their work on the promotion of agro-ecology and supporting the building of rural social movements towards attaining food sovereignty. Attempts have been made by Biowatch and the national network of NGOs and community based organisations, Tshintsha Amakhaya (TA), to lobby government to develop an agro-ecology policy. TA is a collaboration of nine land and agricultural sector NGOs working in nine provinces of South Africa to strengthen civil society and to support and connect community struggles in land and agrarian transformation (Tshintsha Amakhaya, 2012). The response from government has been the development of a national agro-ecology strategy which, if successfully implemented, could in the future lead to an agro-ecology policy (DAFF, 2013). In the view of Rosset and Martinez-Torres (2012) both agri-business and social movements try to justify their existence by attempting to re-occupy spaces to favour their interests, whether it is for profit or for community development. They conclude that central to this is a battle over ideas and this is evident in the arguments about agro-ecology in South Africa.

The focus of this thesis is on analysing agricultural support programmes, particularly extension support, through which two competing paradigms of small-scale farmer development are

articulated. Recent studies on the status of extension support in different provinces of South Africa highlight that the majority of small-scale farmers do not receive appropriate support (Phuhlisani, 2008) with the majority receiving no public support whatsoever (Aliber and Hall, 2012). Manenzhe and Lahiff (2007) support this view and reveal in their case studies on land restitution and post-settlement support in Limpopo that lack of extension support is listed as a top challenge by most farmers. Appropriate support refers to the nature of support in relation to the needs of the farmers.

#### **1.1.4. Introducing the case study**

Emagengeni, located in Northern KwaZulu-Natal (KZN) is a communal area under customary tenure with high levels of poverty and dependency on state social grants as the main source of income. Many households are involved in 'subsistence' farming. Farmers in Emagengeni village experience what extension support based on the two competing models for small-scale farmer development looks like on the ground. Small-scale farming is popular in Emagengeni as most households practice agriculture either as an additional source of food or for extra income. Challenges that the farmers face include water scarcity, lack of knowledge regarding the use of certain inputs, insufficient labour, lack of fencing and poor access to markets. The provincial Department of Agriculture (DOA) and the local NGO Biowatch are the two institutions that offer agricultural support to farmers in this village. Prior to 2008 the state was the sole provider of extension support in the village.

In 2008 Biowatch started working with small-scale farmers in Emagengeni using a farmer-driven approach to extension emphasizing the use of agro-ecological farming methods, quite different from the state model which was orientated towards conventional agriculture. The study focuses on analysing how the two different ideologies and discourses influence the nature of extension support, and looks at the impact of these varied interventions on livelihoods and social inequalities.

#### **1.2. Research questions and objectives of the study**

The main objective of the study is to establish the underlying thinking that determines the nature of agricultural extension support currently available through the two interventions; their form and practice, targeted beneficiaries; and, as a result of these interventions, what social classes



and livelihood trajectories are emerging. The study therefore seeks to answer the following questions:

- (a) What is the status of household food security of the households under study?
- (b) What livelihood assets do the households under study have and what are the livelihood strategies that they use in order to access food, income and security?
- (c) What is the nature of extension support that is offered to small scale farmers – by the state and by the NGO?
- (d) What is the stated purpose of extension support offered to small-scale farmers in both the state and NGO interventions, and through what discourses is this articulated?
- (e) What is the nature of challenges related to extension support faced by: (i) small-scale farmers, (ii) the state and (iii) the NGO?
- (f) To what extent is the extension support model empowering or marginalising poorly-resourced farmers and what is the impact on social inequalities?

### **1.3. Rationale for choice of the study area**

Emagengeni demonstrates some practical examples of what the two competing models of extension support look like on the ground. In this village there are two voluntary farmers' associations: one is supported by Biowatch and the other by the provincial Department of Agriculture. In addition to these two categories there are also households that engage in subsistence farming but are not part of any association and do not get any external support. Not all the households in this village are farming: there are those that have stopped for various reasons, and the study tries to establish why these do not farm anymore. Selection of farmers to participate in the study therefore included (i) farmers who receive extension support from the state, (ii) farmers who receive extension support from Biowatch, (iii) farmers who receive no extension support from either the state, or from the NGO and (iv) previous farmers who are not active in farming anymore.

#### **1.4. Research Methods**

Understanding people's livelihood strategies requires an in-depth inquiry. I therefore conducted qualitative research using a case study-based design (Babbie and Mouton, 2001). The reason for choosing a case study design is that it allows for detailed investigation of particular single units, i.e. households, that engage in small-scale farming and those that do not. Because the nature of the study is empirical it requires an investigation, by means of asking questions, about how people address the real life problem of household food insecurity. To do that one can collect new data, analyse existing data, or do a combination of both (Babbie and Mouton, 2001). For this study, both existing and new data were collected and analysed.

##### **1.4.1. Case studies**

Two small-scale farmers' associations, Nkomfa (supported by the state), and Impisethunjini (supported by Biowatch), serve as case studies. Farming backgrounds and experiences were documented using in-depth interviews, one of the data collection techniques used in qualitative studies (Babbie and Mouton, 2001). Households that did not receive any form of agricultural development support were also included, because one of the aims of the study was to understand why some farmers are excluded from these interventions. This includes households that have stopped farming altogether. A total of 55 households participated in the study, and this figure consists of 15 members of Nkomfa, 15 members of Impisethunjini, 15 households that are farming without external support and 10 households that do not farm anymore. The majority of participants were women: out of 55 interviewees only 5 were men. Many of these farmers have lived in Emagengeni for over 30 years, and the older ones (aged between 60 and 75) were able to provide information about how small-scale farming in the village has evolved over the years and link these changes to the types of external interventions available. Younger participants (aged between 20 and 35) shared their own experiences regarding the changing nature of livelihood strategies in their households especially after the death of parents. Changes over time and current livelihood status were documented with attention to livelihood assets, type and scale of farming, nature of extension support available, household food security, labour regimes, farming challenges and aspirations, and reasons for not farming anymore. Farmers that do not receive any external support were asked about their awareness of any agricultural support programmes

available to small-scale farmers in the area. The interviews took place between the 16<sup>th</sup> and 27<sup>th</sup> of May 2013, and between the 24<sup>th</sup> of June and 5<sup>th</sup> of July 2013.

#### **1.4.2. Key informants**

Other than the farmers themselves, there were five key informants in total. These include two state extension officers working in the uPhongolo municipal area, one state agricultural manager responsible for the extension officers in this area, one state official responsible for the extension recovery programme in the state provincial office in Pietermaritzburg and one agro-ecology manager at Biowatch based in Mtubatuba. Biowatch has only one programme facilitator, which explains why only he was interviewed as compared to several key informants from the state. The interviews took place in the respective offices of the key informants, except for the agricultural manager whose interview took place at a restaurant in town. Some interviews took place during the first round of field work, which was between the 16<sup>th</sup> and 27<sup>th</sup> of May 2013, and others were conducted on the second visit between the 24<sup>th</sup> of June and the 5<sup>th</sup> of July 2013.

#### **1.4.3. Selection of participants**

To select participants I used both purposive and snowball sampling. The former refers to the selection of participants on the basis of one's own knowledge of the people in that particular area while the latter is more accidental sampling which relies on referrals (Babbie and Mouton, 2001). Due to my previous employment at Surplus People's Project (SPP) I had been involved with the Impisethunjini group and so it was easy to select participants through purposive sampling. I used snowball sampling to locate additional households that do not farm anymore, households that farm without receiving any external support and all those belonging to the Nkomfa group. In most cases people were comfortable and happy to participate in the study and to share their experiences and information with me, partly because I had asked someone from the community to accompany me going from house to house.

With regards to identifying key informants for interviews, it was easy to secure appointments with the Biowatch official because of my past working relationship with him. For the others I visited the local office in town where I was given the name and contact number of the agricultural manager. When I called her to set up an interview, the agricultural manager agreed to speak with me in person. She subsequently arranged for the extension officers to meet with

me. The contacts for the provincial official were obtained through a friend, the appointment was scheduled telephonically and we met in his office in Pietermaritzburg. The only difficulty was securing an appointment with the state district manager based further away in Richards Bay, whom I was informed by the agricultural manager in uPhongolo office would be the right person to speak with regarding the programme budgets. Due to time constraints I was not able to remain in the province for long, while trying to find the right person to speak with. I resorted to using data from the provincial government website which did offer some information about budgets.

#### **1.4.4. Methods of data collection**

##### *A. Literature review*

Secondary data were drawn by reviewing existing academic literature on the two models of extension support and by consulting government data, policy documents and organisational plans, budgets and reports. In addition I drew from international, regional and national debates about conventional and alternative agriculture and the various approaches to extension support. The study was influenced by the academic work of scholars such as Ben Cousins (2011) on class analytical perspectives on small-scale farming in South Africa, Henry Bernstein (1995) on agrarian change and structure in sub-Saharan Africa and Andrew Dorward on livelihood aspirations and strategies of the poor (Dorward et al, 2009). The latter informed the theoretical framework for the study.

##### *B. Field interviews*

Field data were collected through semi-structured interviews, all of which were recorded and saved. The interviews were structured along the lines of the key research questions. All participants were visited in their homes and the interviews were conducted in isiZulu which is the dominant locally-spoken language. An interview guide identified the areas and topics to be covered during the interviews. The interviews started with an introduction to the study by me, and some background information about me and my reasons for choosing this particular village for the case study, i.e. the involvement of Biowatch and my previous work experience in this area. This helped to set the pace and flow for the rest of the interview. All participants were informed that the interviews would be recorded once they signed the necessary consent forms.

### *C. Participant observation*

I attended a meeting and conducted a site visit to one of the gardens supported by Biowatch. The meeting was organised by Biowatch and in addition to some of the Biowatch-supported farmers, several state officials from both the national and the KZN provincial Departments of Agriculture were present. The purpose of the meeting was to present to the state officials what agro-ecology is about and to discuss the role the state could play in supporting farmers who practice agro-ecology. As an observer I listened to the conversation, asked questions for clarity and took notes. I introduced myself as a student and explained the purpose of my research and why I had joined the meeting. During the site visit I used the opportunity to engage in informal conversation about some of my preliminary findings with the state officials, and hear what their perspectives were in that regard.

#### **1.4.5. Data analysis**

I began my preliminary analysis while I was in the field conducting in-depth interviews. That allowed me to begin identifying emerging themes, and helped to sharpen my questions in order to focus on those themes for the next round of field work. After concluding all interviews I began a more detailed analysis of the data including my own observations, all categorised by themes. The analysis was deemed complete when I felt that, in relation to the objectives of the study, my interpretations, as presented in the study, made sense, and I was able to share them with others.

#### **1.4.6. Ethics**

The research was conducted according to the permitted ethical considerations on human subjects by the University of the Western Cape, and field work was conducted after gaining ethics clearance approval from the faculty committee. Confidentiality, transparency and respect to all the participants involved were observed throughout the duration of the research. I used an information letter to explain the purpose of the study and my role in it and used consent forms to obtain written permission to ask questions and record answers from each informant who participated. All participants were informed about the option to remain anonymous or use a pseudonym; after that explanation, all of them provided me with permission to use their real names.

### **1.5. Significance of the study**

The focus of the study is on agricultural extension support programmes in South Africa that are influenced by two ideologies as explained in Section 1.1. of this study. Empirical evidence on how the different perspectives translate into practice is provided. In a study of the role of small-scale farmers in increasing household food security in South Africa, Baiphethi and Jacobs (2010) associate the low productivity of small-scale farmers with the lack of state support to provide farmers with improved seeds and fertilizers. Rosset et al (2011) argue that the emphasis on improved inputs in response to farmers' low productivity often demerits alternative agriculture because alternative inputs take longer to respond. Researchers such as Aliber and Hart (2009) have a different view and point out that their research on subsistence agriculture to address household food security in South Africa demonstrates that the failure of small-scale farmers' projects was associated with the neglect of villagers' indigenous agricultural practices and the imposition of different 'modern' farming techniques reliant on bought inputs.

Rosset et al (2011) indicate that there are global debates regarding the ability of extension methods based on conventional agriculture to reach peasant families and even to promote agro-ecology. Hall and Aliber (2010) highlight that a state-commissioned study by the University of Pretoria to develop an appropriate approach to extension found that 63 percent of farmers indicated that extension workers do not offer them any valuable information. Two issues are at play here: the first is the question of the availability of extension support, be it conventional or alternative-orientated, and the second issue is the nature of support and its relevance in relation to the needs and realities of the farmers. Of the minority of farmers who receive extension support, while 63 percent of them found no value in the extension support available to them, the study revealed that 37 percent of the farmers found the information valuable (Hall and Aliber 2010). Altman et al (2009) recommend that government support needs to be well targeted and should not be generic, with a clear understanding of the associated threats and opportunities in supporting small-scale agriculture. Machethe (2004) suggests that an emphasis on technology to increase crop productivity fails to recognise that farmers' constraints are not only limited to yields. He adds that access to technology to help increase yields could be one of the problems, but not the only one, as increasing productivity may require addressing other external factors such as access to physical infrastructure and education.

In the above-mentioned views regarding support to small-scale farmers one can observe that they reflect the two ideologies under discussion. This study examines the wider discourses on small-scale agricultural development paths from an aerial view position, allowing for a critical engagement with both sides of the debate, i.e. the conventional perspective and the agro-ecological farming perspective. It aims to fill in some gaps that exist in the already generated knowledge on the role of agricultural extension in small-scale agriculture, with an emphasis on the nature of such support and targeting of recipients. The study may also be relevant for civil society organisations and policy makers in developing their strategies to support small-scale agricultural development.

### **1.6. Limitations of the study**

In relation to the size of the population of Emagengeni a relatively small number of 55 respondents, representing 55 households, were involved in the study. Due to time and capacity constraints I was not able to engage more participants. Ideally I would have liked to include two villages adjacent to each other that are serviced by two different extension officers, but that was not feasible. So the findings do not necessarily explain the situation with small-scale farming and extension support in the nearby villages of uPhongolo but are specific to Emagengeni. Initially I wanted to include farmers who receive support from both the state and Biowatch, but farmers were not comfortable to reveal this information because, I believe, they knew me through my previous work with Biowatch and felt that if it were known that they received support from both agencies, their access to such support could be put in jeopardy. Biowatch generally discourages farmers to accept seeds and fertilizers that they get from the state, and even though some farmers do it they rather keep it a secret because they fear that Biowatch may stop supporting them. Another limitation of being known by the farmers supported by Biowatch was that most of them were not critical of Biowatch in my interviews with them: they mostly said positive things which made me feel that they were trying to impress me. I then emphasised that the study was for academic purposes and that I was no longer working with Biowatch, which I believed helped because there were a few farmers who then became more critical. On balance, I feel that I was able to recognise the ways in which my position was perceived by my respondents, and to take steps to mitigate against biased responses.

## **1.7. Thesis outline**

In addition to this first chapter, this thesis comprises four additional chapters, described below.

Chapter 2 provides a review of the literature on the two paradigms of agricultural extension support. It looks at the policy narratives and reforms, and provides a theoretical framework. It also unpacks and contextualises concepts such as agro-ecology, conventional farming, food sovereignty, extension, and small-scale farmer. Attention is paid to class differentiation among small-scale farmers and their livelihood aspirations, drawing from the work of scholars such as Cousins (2011) and Dorward et al (2009), and this forms the theoretical framework of the study. The global, regional and national debates concerning small-scale farmers' development are explored and analysed, and so are the policies supporting these.

Chapter 3 uses data collected from the field to describe the types of households and livelihoods in Emagengeni. This section of the thesis highlights the types of small-scale farmers that are found in Emagengeni. They are categorised according to their purpose of engaging in farming, distinguishing between those farming for own consumption and those farming for markets, own consumption and selling their produce in varying proportions. Contrary to ideas in policy documents about a perceived dichotomy between 'subsistence' and 'emerging commercial' farming, which presupposes that the former relies on household labour and the latter on hired labour, findings suggest that farmers who sell some of their produce do not use hired labour but those who produce for own consumption use hired labour. Livelihood trajectories observed indicate that only a few farmers are diverting to non-farm livelihood activities, while the majority is active in small-scale farming.

Chapter 4 explains the kind of support that is provided by the state and Biowatch, paying attention to their own assessments of the programmes. Extension officers are in tune with the challenges of farmers and some admit that they lack skills in alternative methods of farming and have seen from Biowatch that farmers do benefit from it. This is followed by a detailed analysis of what the farmers think of the two programmes.

Chapter 5 concludes with an outline of how the factors described in Chapter 3 influence the type of support that farmers receive, which is explained in Chapter 4. What emerges here is that those farmers with the most financial and social capital are the ones best positioned to receive support



either from the state or from Biowatch. This is followed by an analysis of class differentiation emerging as a result of the two interventions, for which I apply the theoretical framework discussed in detail in Chapter 2. Throughout this chapter I will make reference to the literature review and policy narratives set out in Chapter 2, looking at which ideas and theories are confirmed, and which are contradicted or opposed.



## CHAPTER 2

### **2. Small-scale Agriculture and Extension Support: Theoretical Framework, Policy Narratives and Literature Review**

#### **2.1. Introduction**

The dualistic nature of the South African agricultural sector is a result of the apartheid agro-food system which was supported by policies and laws that favoured white large-scale commercial farmers and resultantly marginalised black commercial agricultural activities (Greenberg, 2010). This chapter will explore both the dominant view about the nature of this dualism and how to overcome it, and an alternative view.

Following the 2007 ANC conference in Polokwane where discussions on agrarian reform were high on the agenda, the new Zuma-led government in 2009 identified rural development, with a focus on smallholder farming, as a key priority (ANC, 2007). This focus on small-scale farming as a rural development strategy is shared by both the state and many civil society organisations, but they disagree on the path to be followed (Greenberg, 2013).

On the one hand government, as indicated in the National Development Plan (NDP) 2030, proposes a focus on small-scale labour-intensive agriculture and the integration of small-scale farmers into the formal corporate-dominated agro-food system. In addition, the plan suggests that priority should be given to successful farmers in communal areas as this would increase collaboration with existing (mostly white) commercial farmers (NPC, 2011). Louw (2013) indicates that successful small-scale farmers have been portrayed as those who are productive and engage with markets and therefore earn sufficient income mainly from farming. This would require assistance from white commercial farmers, agri-business and organised agricultural industry bodies such as Agriculture South Africa (AgriSA) and its commodity sector affiliates (NPC, 2011). Greenberg (2013) suggests that the state and the private sector share the same goal, and that is to build a class of smallholders that is able to stand on its own, will merge into the mainstream agrofood system, and will not require ongoing support from the state.

On the other hand, civil society organisations are challenging the dominant commercial agriculture view for excluding resource-poor farmers, and advocate for agro-ecological

production methods and food sovereignty (Tshintsha Amakhaya, 2012). Food sovereignty emphasises that local farmers should produce for the local market. This calls for developing an alternative food system which includes access to inputs, processing and marketing of produce that is controlled by the producers and their immediate communities rather than by dominant national and multinational corporations (Tshintsha Amakhaya, 2012).

A focus on agricultural development is of major importance in poverty reduction because agriculture is an important source of income and also provides livelihoods for many rural households (Aliber and Hart, 2009). The estimated number of small-scale farmers in the country is around 4 to 4.5 million individuals, belonging to about 2.5 million households (Aliber and Hall, 2012). These farmers are virtually all black (so-called 'Africans' and 'Coloureds' in the apartheid lexicon). A critical aspect of small-scale agriculture development is extension support. In order for farmers to increase productivity, they require access to support such as skills training and knowledge development, farming technologies, finance and markets (Haug, 1999). For many small-scale farmers this remains a challenge (Phuhlisani, 2008).

The historical context of farming and agriculture in South Africa explains in some ways the problems facing extension support for small-scale farmers today. During apartheid, the entire system of price regulation, state-controlled marketing and credit services, inputs, transport and export subsidies allowed white farmers to commercialise while black farmers were excluded. Regarding extension support, white commercial farmers received better quality extension, rendered by qualified extension workers with the ability to train and address the needs of farmers. Black smallholders on the other hand were poorly serviced by under-qualified extension workers (Machethe and Mollel, 2000).

Machethe and Mollel (2000) suggest that it is vital to define small-scale farmers so that there is proper targeting of available resources to gain maximum benefit. They add that in order to redress historical imbalances farmers must be differentiated in such a way that the disadvantaged ones are clearly identified. They further point out that the needs of small-scale farmers must be clearly understood in order to effectively meet them. The most common terminology used in South Africa for historically disadvantaged farmers, particularly in the former homelands, are 'smallholders', 'small-scale farmers', 'food-security farmers', 'subsistence farmers' and

'emerging farmers'. These are often defined on the basis of land size, purpose of farming, either for own consumption or for sale, levels of income and racial group (Machethe and Mollel, 2000). The problem with the use of these concepts is that they are generalised and fail to distinguish between the diverse profiles of small-scale farmers.

The South African agricultural policy, outlined in the 1995 White Paper (DOA, 1995), distinguishes between three types of producers: 'commercial farmers', 'smallholder farmers' and 'subsistence farmers'. Commercial farmers are responsible for about 99 percent of the country's formal marketed agricultural output and comprise less than 40 000 farming units of predominantly white farmers. These farming units are not only family-owned: a growing number is company-owned due to a process of corporatisation. Smallholder farmers, producing for local markets, comprise between 300 000 and 400 000 predominantly black farmers producing on approximately 14million hectares, and are concentrated in the former 'homelands'. Subsistence farming households are estimated at 4 million, and they farm mainly for household consumption. The Agriculture, Forestry and Fisheries Integrated Growth and Development Plan of 2011-2013 points out that smallholders and subsistence farmers can play a role in improving livelihoods and household food security (DAFF, 2010). However, there is not sufficient data regarding these particular sectors of agriculture, despite their dominance in terms of numbers.

Strategies such as the NDP 2030 outlined earlier are an indication that in South Africa dominant agricultural development discourses tend to favour commodity producers, while downplaying the potential of 'subsistence' agriculture to contribute to poor people's livelihoods and food security, particularly in communal areas. This tendency is evident in the nature of state interventions to support small-scale farmers, which often focus on providing technologies such as improved seeds, chemical fertilisers and pesticides in order to increase yields to meet market demands (Greenberg, 2010). This is done regardless of evidence from case studies conducted in some villages, which indicate that subsistence agriculture and traditional farming methods contribute directly to household food security (Aliber and Hart, 2009).

While the number of subsistence farmers who farm as their main source of food has dropped, there has been an increase of those who farm for an additional source of food (Aliber et al, 2009). There has been a growing interest, mostly from NGOs, to provide extension support to

small-scale farmers, particularly in rural areas, but their efforts are constrained by a lack of resources (Biowatch, 2012). The approach of such NGOs demonstrates a move towards a more needs-based and farmer-driven approach to extension, with criticism of generic conventional interventions. NGOs tend to focus on promoting alternative, mainly agro-ecological farming, and emphasise enhancing local farming practices primarily for the household's own consumption. There is a clear distinction between these two paradigms of agricultural extension, informed by what the state on the one hand, and the NGOs on the other, see as the objectives of small-scale farming.

The next section of this chapter will take a closer look at the different theories pertaining to small-scale agriculture and rural livelihoods, which form the conceptual framework for this thesis. That will be followed by a review of the South African agricultural reform policies. The chapter will end with an assessment of the international, regional and national debates on agricultural extension support, while paying attention to the two paradigms at hand.

## **2.2. Theoretical perspectives on the differentiation of small-scale farmers and understanding rural livelihoods**

Commentators in the field of agrarian transformation often emphasise that rural communities are not homogenous, and any developmental interventions that fail to recognise this factor are likely to achieve limited impact. In the view of Cousins (2011), small-scale farmers can be distinguished as (i) petty commodity producers who produce to meet most of their social reproduction needs, (ii) petty commodity producers producing to partially meet their social reproduction needs and (iii) petty commodity producers producing enough to sell and make profit and start to accumulate capital. Cousins (2011) points out that a major limitation in the generalised use of the concept 'small-scale farmer' is that it does not allow for the analysis of the dynamics of such differentiations, such as gender inequalities. He further argues that different categories of small-scale farmers require support that is appropriately differentiated, and thus policies should recognise such categories.

This study focuses on the various kinds of small-scale farmers, differentiated by the size of land they farm, their tenure arrangements, gender, class and for what purpose they farm. It is therefore important to define the concept of a small-scale farmer by looking at diverse descriptions. For this I shall draw from the theoretical perspectives on peasant class differentiation articulated by

Bernstein (1995). He points out that peasants can be classified as (i) poor peasantry referring to those who become classes of labour, (ii) middle peasantry, these are able to farm in order to reproduce themselves but do not move beyond to the level of accumulating capital, and (iii) rich peasants, referring to those who accumulate land and begin to employ wage labour and become capitalist farmers.

In addition my study is influenced by the ‘stepping up’, ‘hanging in’ and ‘stepping out’ theory as a way to analyse the broad types of livelihood strategies pursued by poor people (Dorward et al 2009). They argue that people in general aspire to both maintain their current means of social reproduction and to advance these. In their attempts to advance them, people can either try to expand their existing livelihood activities or move into new ones, or both (Dorward et al, 2009). People who are (i) ‘hanging in’ have assets and engage in livelihood activities in order to maintain existing livelihood levels; those who are (ii) ‘stepping up’ make investments in assets in order to expand their current livelihood activities; the ones who are (iii) ‘stepping out’ engage in livelihood activities enabling them to accumulate assets which can allow them to venture into different livelihood activities (Dorward et al, 2009). I shall in addition apply one more category of a livelihood trajectory, i.e. ‘dropping out’, as described by Mushongah and Scoones (2012) as those people who are unable to ‘hang in’ and so become destitute.

### **2.2.1. Livelihoods analysis approach**

The study applies the sustainable livelihoods framework in order to establish the different categories of small-scale farmers under study. Drawing from the work of Chambers and Conway, Carney (1998) explains that a livelihood entails assets, means and activities needed for living. It is sustainable when people are able to cope and recover from any setbacks by either maintaining such means and assets, or expanding on them through accumulation. The livelihoods framework provides the instruments for livelihoods analysis and helps those in the rural development field to understand the complexity of rural livelihoods (Carney,1998). Of all the elements of the framework, attention is given to the assets that people can draw on for their livelihoods. As outlined by Carney (1998), these are *natural capital* such as land and water; *physical capital* such as transportation and communication; *financial capital* which includes cash, credit and remittances; *social capital* such as networks and membership in organisations and *human capital* such as knowledge and skills. In addition to this asset base, the framework

also includes policies, institutions and processes that shape livelihoods, as these often determine how people use their assets to pursue different livelihood strategies (Adato and Meinzen-Dick, 2002).

The limitations of the livelihoods framework are taken into account in the study, such as those identified by Scoones (1998), who notes that to focus the analysis of livelihoods on assets and outcomes alone is flawed as this does not give an understanding of the *processes* through which livelihoods are achieved. He explains that community dynamics and social stratification are as significant as assets, and the assumption that rural people are homogenous could be a costly one as it could encourage inappropriate livelihood intervention strategies. Adato and Meinzen-Dick (2002) add to this that the framework lacks notions of power and power relationships. Power may refer to political power or decision making power.

On the other hand, the framework has been praised by many, and Carney (1998) states that the attention given to assets in the framework forces people to apply a holistic approach. By focusing on what people in rural areas already have, it also recognises and builds on their strengths. In support of the framework, Adato and Meinzen-Dick (2002) highlight that it recognises people, whether they are poor or not, as the main actors in pursuing their own livelihoods, unlike in other perspectives where the poor are regarded as passive recipients of government development initiatives.

## **2.3. South African agricultural policy reform: An overview**

### **2.3.1. Background**

The protection and support of white commercial farmers through laws such as the 1913 Natives Land Act, the 1936 Natives Trust and Land Act, the 1937 Agricultural Marketing Act, and including controlled marketing and state-run research and extension, resulted in a strong sector and formation of a commercial farmers' lobby group that in turn influenced agricultural policies (Van Rooyen, 1995). Farming in 'black areas' (formerly 'natives reserves' and later 'homelands' or bantustans) lacked support, was restricted by legal arrangements and did not have any representation or participation in policy formulation (Van Rooyen, 1995). In the 1980s, the Development Bank of Southern Africa (DBSA) launched Farmers' Support Programmes which were developed as an attempt to support black agriculture in the 'homelands' through financial

investments. The aim was to promote structural change and assist farmers to move away from subsistence agriculture toward commercial production. The programmes aimed to do this through providing inputs and capital, extension services, mechanisation and research, and they were targeted at farmers who showed potential and demonstrated a need for support (Van Rooyen, 1995). Cooper (1995) criticises the process for being top down, emphasising that it failed to promote programmes that met the needs of the people and it did not provide for the opportunity for institution building between farmers, community-based organisations and NGOs. Sender (1995) questions the targeting of beneficiaries and highlights that the programmes did not have an adequate framework to provide a more accurate analytic categorisation of rural households.

Bernstein (2013) suggests that the beginning of deregulation in the late 1980s right through the transition period between 1990 and 1994 was a strategy by organised agriculture to re-position itself for post-apartheid privilege. The government's purpose of deregulation was to deactivate state marketing schemes and other forms of subsidies that were key to the development of white farmers during apartheid. Deregulation did not only favour the nearly bankrupt apartheid state in terms of redirecting financial resources that would otherwise have gone into supporting many black farmers post-1994, it also opened opportunities for large-scale commercial farmers in the global market. The policy direction therefore reflected class differentiation within the commercial farming sector. This was supported by the World Bank, which positioned itself to work alongside the ANC to help restructure agricultural policy (Hall, 2011). The Bank also teamed up with DBSA and, together with some of the ANC advisory team through its Land and Agricultural Policy Centre (LAPC), dominated policy discourses (Bernstein 2013). Against this background, in the next section I give an overview of agricultural policy reform in South Africa post-1994.

### **2.3.2. Overview of government policies post-1994**

The historical, political and institutional legacy inherited by the national Department of Agriculture (DOA) shapes the nature of extension support today. The White Paper on Agriculture of 1995 stipulates equitable access to extension support to mainly previously disadvantaged farming communities. It also suggests the re-orientation of extension officers away from large-scale commercial farming models, stating that they should become more



attuned to the needs of small-scale farmers. This recognition is however not explicit in the state policies which are aimed at addressing past injustices, including through land redistribution and agricultural support programmes for poor farming communities (DOA, 1995).

In 1996, the government launched its macroeconomic plan, the Growth, Employment and Redistribution (GEAR) strategy, in which the liberalisation and restructuring of the agricultural sector received little attention (Mather and Greenberg, 2003). While agriculture makes a limited contribution to the Gross Domestic Product (GDP), about 6 million people rely directly or indirectly on income derived from agricultural activities and livelihoods (Mather and Greenberg, 2003). Another government strategy was the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) of 2006 which emphasised the need to promote small businesses as a strategy for economic development. The aim was to achieve a growth rate of six percent per year by 2010 (DAFF, 2010), a goal which failed.

With deregulation in agriculture in the early 1980s, driven by a need to reduce the burden on the state of subsidising white commercial farmers, came trade liberalisation. Free trade meant the opening of global markets and more competition for farmers. Bernstein (2013) highlights that deregulation led to a faster increase of agricultural imports than of exports, including an increase in the importing of farming inputs such as fertilizers and seeds. While it is not clear whether free trade contributes to the reduction of poverty, it remains a priority in South Africa for large agribusiness as the country acceded to the World Trade Organization (WTO) in 1995 (DAFF, 2010).

Some strategies for transformation in the agricultural sector include land reform, which the South African government embarked on at the onset of democracy. The White Paper on South African Land Policy of 1997 (DOA 1997) stipulates three legs of the land reform programme: (i) land redistribution with the objective of giving previously disadvantaged poor people access to land mainly for agricultural production, (ii) land restitution which concerns addressing forced removals, and (iii) land tenure reform aimed at improving tenure security of farm workers and dwellers on commercial farms and people in communal areas. Programmes aimed at providing agricultural support services include the 2006 Micro Agricultural Finance Institution of South Africa (MAFISA) credit scheme for poorly resourced farmers and the Comprehensive Agricultural Support Programme (CASP) established in 2004. The objective of these

programmes is to assist smallholders and subsistence farmers to develop into viable commercial enterprises (DAFF, 2010). CASP remains the most significant source of support mainly used to buy infrastructure (Aliber and Hall, 2012). However, it has focused on land reform beneficiaries with no effective support on a meaningful scale for the vast majority of smallholders and subsistence farmers in the communal areas where most black farmers are located. The 2010 Integrated Growth and Development Plan (IGDP) reflects that some of the reasons for the poor performance of agricultural support programmes may include capacity constraints of personnel to implement the programmes effectively and the lack of extension services (DAFF, 2010).

In response to the gaps that existed in the extension advisory services in South Africa, government commissioned Duvel to conduct a study in 2000 to establish which extension model would be appropriate for the country (DOA, 2001a). The Annual Report on the norms and standards of 2008/9 indicates that the study recommended a more participatory programmed extension approach (PPEA), and this led to the development of the norms and standards for extension and advisory services in agriculture. The norms and standards were adopted by then Minister of Agriculture Thoko Didiza in 2005. The aims for developing the norms and standards were to improve efficiency of state extension services in the most cost effective manner, and to promote a participatory approach. Based on the requirements of the norms and standards, the National Framework for Extension Recovery Plan was developed in order to revive the state of extension in the country (DOA, 2001a). The five areas of focus in the recovery plan include increasing the visibility of extension officers by improving their image, professionalism and skills. In addition, the plan proposed a focus on increasing the number of extension staff and use of improved information. Provinces with large numbers of black small-scale farmers and which have huge capacity gaps, such as KwaZulu-Natal, Limpopo and Mpumalanga, were prioritised in terms of budget allocations (DAFF, 2010). Some of the highlighted outcomes of the extension recovery plan included the recruitment of 350 additional extension staff, training of 730 extension staff and provision of information and communication technology (ICT) equipment to 2423 staff members (DAFF, 2010).

## **2.4. History of agricultural extension delivery and approaches to extension support**

In the former section I provided a political and economic context within which small-scale farmer development is being negotiated. In this section I review the literature on agricultural extension.

### **2.4.1. Unpacking the concept: What is extension and whence does it originate?**

Extension support has been and continues to be central to agricultural development. It has many definitions and approaches to it, and the views on the nature of agricultural extension have evolved over time, informed by the perceived objectives of agricultural development (Davis, 2008). Turner and De Satgé (2012) describe extension as the transfer of information, knowledge and skills from and by individuals and institutions that are in possession of such resources, to those who lack them. Other definitions of extension as articulated by Haug (1999) emphasise that it is about the development of knowledge and human resources, and highlight that agricultural development is more than supplying seeds and fertilizers to farmers. Drawing from Davis (2008), Turner and De Satgé (2012) provide another definition, stating that extension consists of various institutions supporting people involved in agricultural production by facilitating their access to information and their process to acquire skills they need to improve their livelihoods.

The notion of agricultural extension came about during the 19<sup>th</sup> century, pioneered by some British universities as their commitment to extending knowledge and skills to rural poor people. It emerged mainly as a response mechanism to the agricultural and food security crises in Europe at the time (Turner and De Satgé, 2012). During the early years of extension, as articulated by Pretty and Chamber, cited in Haug (1999), the approach was that of top-down transfer of technology from the scientists who specialised in crop and livestock technology innovation to farmers as recipients. A new phase of two-way communication transfer of technology followed in the late 1970s and was led by economists together with agronomists and farmers. With this approach, farmers were also seen as sources of information and they contributed in the design of technology. This phase was popular for about a decade, and the mid-1980s saw the beginning of a new phase, described as the ecological phase, which was led by the agro-ecology, anthropology and geography disciplines. Again farmers contributed their knowledge and the emphasis was

more on the sustainability of the environment, with farmers seen as both victims and causes of environmentally unsustainable development. The institutional phase dates back to the mid-1990s, and was pioneered by social scientists, psychologists and political scientists who put farmers at the forefront of research and extension.

To further explain the evolution of agricultural extension, Turner and De Satgé (2012) present four major paradigms of the nature of agricultural extension: (i) conventional technology transfer, (ii) advisory services, (iii) non-formal education and (iv) facilitation. The conventional approach is centred on delivering knowledge about improved farming inputs such as seed varieties, pesticides and fertilizers, and this information is generated in formalised research institutions with sound research facilities such as universities. It is transferred to the farmers through extension services. The advisory services approach provides the space for farmers to initiate and identify problems they experience in farming and use their own discretion where it is necessary, as opposed to being passive recipients of information. The non-formal education approach is more farmer-driven: here, farmers conduct their own research by experimenting with different farming techniques and perform experiments on selected topics that are identified by them. Central to facilitation extension is the notion of extension workers assuming the role of facilitators that are informed and guided by the farmers they support. The extension worker does not necessarily have the answers or the expertise in farming. However, their approach moves beyond farming and looks at livelihoods more suited to provide a particular kind of intervention. The difference in approaches and theories observed in the evolution of extension shows that there are variations in perspectives on the objectives of extension supported by different disciplines, and these are ideologically different.

#### **2.4.2. A glance at international agricultural extension trends**

In their review of current international trends in agriculture, Turner and De Satgé (2012) highlight five common features. Firstly, the trend is a move towards pluralistic extension approaches; it is a trend that tries to move away from the state as the only provider of extension support to a more inclusive approach, involving institutions such as NGOs and private companies. Secondly, there is a reduction in public spending on extension which, in developing countries, could be attributed to the introduction of SAPs, which implies a reduction in public expenditure, including on extension support. Thirdly, there is a focus on knowledge and

information development, with a strong emphasis on farmer-driven research as opposed to the conventional way of generating knowledge which was more top-down. Approaches such as farmer field schools and participatory research extension processes have become more popular, especially with NGOs trying to strengthen and promote alternative ways of farming, such as soil and water conservation. Turner and De Satgé (2012) suggest that most reviews of farmer innovation show that farmers more easily absorb and utilise knowledge when it is derived from other farmers, than when it comes from an external source such as a university or agricultural council. Fourthly, the trend is towards the integration of extension into broader rural development efforts, with a strong focus on sustainable livelihoods and environmental sustainability concepts (Turner and De Satgé, 2012). This has been driven by the desire of many governments to make extension more accessible to poorly resourced farmers. Lastly, international trends in agriculture show an increase in the use of information and communication technology (ICT) to transmit knowledge much faster and wider, which tends to be less costly than physical interaction (Davis, 2008).

### **2.5. Agricultural extension in South Africa: Overview**

In 2007 the estimated total number of extension staff employed in the country was 2155, but the numbers per province varied. Limpopo province had the highest number of 666 followed by the Eastern Cape at 623, KwaZulu-Natal (360), Mpumalanga (189), North West (137), Free State (40), Gauteng (29), Western Cape (25) and Northern Cape with lowest number of 23 extension officials (Phuhlisani, 2008). Many resource poor small-scale farmers do not have any contact with agricultural extension officials and for the few who do get some service it is not always appropriate to their farming needs (Phuhlisani, 2008). The average ratio of extension staff to farmers was 1:485 which, in the view of Machethe and Mollel (2000), is a favourable ratio if compared to those in developed countries; however, the quality of extension services is low.

Expenditure and accountability issues are highlighted by Machethe and Mollel (2000) as other factors influencing access and quality of extension services. They state that an estimated R515 million per year is allocated to agricultural extension services, much of which is spent on salaries. Some provinces spend 95 percent of their budgets on salaries with little left for items such as training, transport and communication. Regarding accountability, Machethe and Mollel (2000) point out that the lack of accountability of extension officials to farmers is another major

problem. In their view extension agents are more accountable to their supervisors than they are to farmers, but even that is not evident because there are no monitoring and evaluation mechanisms in place.

## **2.6. Approaches to extension delivery**

### **2.6.1. Whose job is it to provide extension support?**

While there are different views about who should deliver extension support, Haug (1999) states that it is not a question of choosing between public (state) and private (NGOs, private companies and farmer groups) bodies, but that it is a matter of combining the efforts of these four sets of institutions. She suggests that the focus should be on what might be most effective, where and for whom.

Advocates for privatisation of extension argue that the role of the state has to be reduced and private institutions should take over, because state institutions are often ill-equipped, inflexible and un-responsive (Kidd et al, 2000). Kidd et al (2000) argue that the popular training-and-visit method that has been implemented under World Bank loan conditions by many governments of the South proved to be financially unsustainable and ineffective. In their view failure was mainly due to the remoteness of farmers, lack of transport, illiteracy of farmers and a lack of capacity among extension workers. They suggest that the role of the state should be to provide an enabling environment by developing and implementing policies related to access to land, markets and credit for farmers. They praise the providers of private extension services for great performance on commercial farms resulting in high yields of high value crops and livestock (Kidd et al, 2000). It should be noted that this support for the privatisation of extension services only speaks to extension that is delivered by private companies, and accessed by those farmers with resources to purchase inputs and technologies sold by such companies.

In South Africa the state is primarily responsible for rendering extension services, but also bearing responsibility, to an extent, are private companies and NGOs. The delivery of extension support includes providing information on improved technologies, training and marketing to help farmers increase productivity and improve livelihoods. The state supports the dominant conventional model of agricultural development, based on commercialisation and intensification in order to increase productivity (Turner and De Satgé, 2012). This, according to Anderson and

Feder (2004), requires investment in extension services. Although different approaches to extension have evolved over time, the conventional top-down approach remains dominant. For example, an extension policy review conducted by Phuhlisani (2008) shows that in KwaZulu-Natal, the government's strategy was focused on small-scale farmers becoming commercial farmers through technology development and improved veterinary services. A similar approach was observed in Limpopo, where CASP funding is only available to small-scale farmers who farm on five hectares or more. It is clear that this approach is targeted towards farmers who are producing for a market, described by Cousins (2011) as 'petty commodity producers' of a significant surplus which allows them to make a substantial amount of profit for reinvestment in the business, and accumulate assets and wealth. Very little is said in the extension policy review about farmers who produce primarily for own consumption and those who farm to supplement food access – even though the latter account for most black farming households. Although the Eastern Cape provincial extension strategy makes reference to supporting 'household food security' initiatives, it does not provide information on how subsistence producers would be serviced.

### **2.6.2. Conventional extension approaches**

A popular method that is used in the conventional approach to extension support is the training-and-visit (T&V) system. By focusing on transferring technology and information to farmers, the state may help to increase productivity, but it neglects the inclusion of institutional development and livelihood activities of farmers into their approach (Farrington 1997). Critics of the conventional model of extension decry its emphasis on promoting improved external technologies while ignoring the social, political and economic environments in which small-scale farmers operate (Anderson and Feder 2004). In the view of Anderson and Feder (2004), for instance, effective extension involves sufficient and timely access to relevant advice, giving enough space for farmers to adopt the new technology and to assess whether it suits their socio-economic and agro-ecological conditions. Haug (1999) further highlights that the pioneers of the ecological phase challenged the conventional model for viewing agriculture as a technical income-generating activity. They suggested that farmers should rather be viewed as social actors who do their own trials all the time and spread the information through their own networks.

Anderson and Feder (2004) state that, given the diverse nature and needs of socially-differentiated groups of small-scale farmers, coupled with many co-existing approaches to farming, different institutions are best suited to deliver various types of extension advice. It appears that the South African government perceives that 'real' agriculture meriting extension support is that which is done for commercial purposes, including exports and foreign exchange, whereas in the case of most poor small-scale farmers, their priority is to increase household food security and to earn an income through selling surpluses. Thus moving from the premise that extension has two functions, the question is who should be served by which extension service. Apart from the state, NGOs, private companies and farmer groups also deliver extension services to various groups of farmers at different scales.

### **2.6.3. Extension delivery by private companies**

This sector involves agri-business giants that manufacture farming inputs such as fertilizers and pesticides, seeds, machinery and their marketing agents. Their interest is to sell their products to commercial farmers and the state, which then provide the inputs to small-scale farmers through extension workers. Their marketing agents visit clients (farmers) on site and provide technical information and advice on how to use a particular product. Only farmers with the means to purchase these inputs benefit from extension services provided by this sector, and these are predominantly large commercial farmers. Supporters of the delivery of extension by private companies share a view that this would address accountability issues, something that is lacking in the state-driven extension programmes. For example, Antholt, cited by Macheche and Mollel (2000), suggests that farmers should bear some of the costs of extension services they receive as this would encourage a more demand-driven service and thereby promote accountability. Such a strategy would, however, not be effective in South Africa because many small-scale farmers and subsistence producers do not have the financial means to pay for private extension services. Bernstein (2013) provides a description of the prominent agri-businesses in South Africa which, following deregulation, dominate this industry (Bernstein 2013). Some of these include Pannar, a multinational seed production company, Norx Hydro, a leading fertilizer corporation, and the top ten pesticides companies, including multinationals Syngenta and Monsanto. The inputs supplied by these companies are the basic ingredients required for agricultural intensification



through purchased inputs. However, agro-ecological farming methods can also lead to intensification, like the case of Cuba discussed in Chapter 1.

#### **2.6.4. Extension delivery by NGOs and farmer groups**

NGOs tend to provide extension support where the state is inadequate, and their strategies emphasise developmental roles beyond agriculture, partly informed by their understanding of the nature of rural livelihoods (Phuhlisani, 2008). Examples of NGOs in South Africa that currently provide extension support to poorly-resourced farmers include Biowatch, Surplus People Project, Farmer Support Group and Southern Cape Land Committee. The latter three NGOs are part of Tshintsha Amakhaya (see Chapter 1). In their orientation, these NGOs seek to reach resource-poor small-scale farmers, particularly 'subsistence' farmers in marginalised communities. However, capacity and funding constraints limit their ability to reach many farmers and to achieve a larger impact (Biowatch, 2012). Farmers also provide extension services through farmers' forums and co-operatives, using strategies such as farmer-led research, farmer-to-farmer learning exchanges and farmer field schools (Simpson and Owens, 2002). Many NGOs advocate for alternative approaches to the delivery of extension that put the needs of farmers at the centre, recognising that farmers' socio-economic and agro-ecological conditions are complex and diverse (Farrington, 1997). Such methods of extension include horizontal learning and farmer field schools, and these methods combine the elements of adult education, agro-ecology and local organisational development. Farmer field schools were first implemented in Ghana in 1995 and continue to spread in Africa including South Africa (Simpson and Owens, 2002). These alternative extension methods have been praised for allowing research that is relevant to resource-poor small-scale farmers to take place, allowing them to take a lead in the development of knowledge (Friis-Hansen et al, 2012). Many NGOs that deliver agricultural extension articulate that their objective is to enhance the social, economic and political empowerment of marginalised groups (SPP, 2009). However, according to Farrington (1997) they ignore the fact that farming only makes a small contribution to the livelihoods of many poor households, suggesting that NGOs are limited in their thinking. Christoplos (2010) on the other hand suggests that extension services deserve public investments; they cannot only rely on NGOs with a limited capacity and scale, or on private companies whose interest is in selling technology and inputs by targeting only resourced farmers. His view is that extension services should look at the use of

both public and private goods, the former referring to natural resources management, climate change and food security, while the latter is about one-on-one advice provided to commercial farmers. He suggests that extension reform must involve a wide range of stakeholders.

## **2.7. Ideologies shaping the different approaches to extension support**

### **2.7.1. Proponents of conventional agricultural development**

Supporters of the conventional model for agricultural development have been influenced by the Green Revolution that began in the mid-1960s and was believed to be a great success (Pingali, 2012). The motive behind the Green Revolution was accelerating the growth of agricultural output in the short term, made possible by innovation and application of high-yielding varieties of seeds and chemical fertilizers. This resulted in a massive increase in agricultural productivity despite doubled population numbers. The success of the Green Revolution, according to Pingali (2012), was the result of high rates of investment in crop research, infrastructure and market development, combined with appropriate policy support. The World Bank has been and continues to be a major supporter of this conventional model of agriculture and, with the introduction of SAPs in the last decades, there has been a drop in both public and, until recently, private agricultural investments in developing countries. This makes it even more difficult for resource-poor farmers to access technology and improved inputs and to cope with climate change and environmental degradation.

The private sector has also become a major player in research, generation and release of new varieties to help farmers increase yields, and they have taken up the task to deliver extension services. In countries such as South Africa, Kenya, Malawi, Ethiopia and India, agricultural development policies have largely been influenced by the Green Revolution, mainly because of these countries' relationships with the World Bank (Turner and De Satgé, 2012). Pingali (2012) supports this by suggesting that intensification of productivity requires policies that enhance competitiveness of modern agricultural systems. In practice, intensification and commercialisation create dualistic systems consisting of poor small-scale farmers and well-resourced and often large commercial farmers, and this remains the dominant structure of agriculture in many developing countries, including South Africa.

### **2.7.2. Proponents of alternative agricultural development**

The supporters of alternatives to the dominant model of agriculture claim that one can feed the growing population of the world while protecting the environment, which has been put under risk by the conventional model of farming (Vanloqueren and Baret, 2009). Proponents of this model argue that conventional agriculture is unaffordable and unsustainable for resource poor farmers as it requires external inputs which are often hard to access (Altieri et al, 1998). For these actors, subsistence agriculture has a very important role to play in enhancing household food security. What is required are policies that enhance small-scale farmers' access to secured land and skilful management of locally-available farming resources, as this could increase agricultural productivity in a sustainable way (Scialabba, 2000). Existing policies are however weak and they demonstrate a lack of political will to support alternative agriculture, while promoting agro-chemicals and supporting commercialisation of small-scale agriculture (Scialabba, 2000). The focus on exports undermines the need for local food security and the potential role of subsistence farmers who are a majority. Critics of agro-ecology question its ability to produce at a large scale for a growing population and highlight that agro-ecology ignores the penetration of cheap manufactured foods through retailers in the rural areas (Greenberg, 2010).

### **2.8. Conclusion**

In South Africa there are currently two main paradigms of small-scale agricultural development, namely a dominant and an alternative, but there are also positions in-between. The alternative paradigm is supported by civil society organisations which criticise liberalisation and globalisation for exposing poor people in developing countries to exploitation, and for a model of economic growth that compromises the sustainability of natural resources and the environment (Tshintsha Amakhaya, 2012). The conventional paradigm is, on the other hand, supported by financial institutions such as the World Bank and governments of developed and developing countries, including the government of South Africa. The proponents of this dominant approach base their views on past evidence concerning some major historical processes of economic growth and poverty reduction, such as the Green Revolution (Pingali, 2012). They criticise civil society for romanticising the majority of the poor and their focus on subsistence agriculture, which in their view cannot bring about the development of rural areas. They further

criticise alternative farming methods such as agro-ecology for focusing on niche markets, which implies that it cannot feed the world's growing population.

The political economy of small-scale agricultural development shows that there is a real interest in South Africa as a market for agricultural inputs by giant companies such as Monsanto, Pannar, Syngenta, Foskor and Omnia (Bernstein, 2013; Greenberg, 2010). This explains the push towards agricultural intensification particularly by the state. Genetic engineering of inputs is viewed as the solution to all productivity problems while agro-ecology is seen as a partial solution (Vanloqueren and Baret, 2009). Dorward et al (2009) warn that, should both these critiques be valid, it could spell trouble. They suggest a more nuanced analysis of historical successes and failures in development with regard to the Green Revolution and agricultural transformation.



## CHAPTER 3

### 3. Description of the Study Area, Classification of Households, Livelihoods and Food Security in Emagengeni

#### 3.1. Introduction

The KwaZulu-Natal (KZN) strategic plan 2010-2015 indicates that about 35% of the province's population is food insecure due to high levels of unemployment and increasing food prices. The province has the second largest population, estimated at 10.6million in 2010 (PPC, 2012). The study site for this thesis is Emagengeni village, located in the northern part of KZN in uPhongolo (see Figure 1). In 2008, a local NGO known as Biowatch started working with small-scale farmers in Emagengeni, supporting them to increase their farming productivity, primarily to improve household food security. Biowatch was established primarily to research issues related to genetic modification of seeds and plants and to promote biological diversity and sustainable livelihoods. This NGO works with small-scale farmers on issues of food security, sustainable agriculture and farmers' rights, in various villages in KwaZulu-Natal and Eastern Cape provinces of South Africa (Biowatch website).

Prior to 2008, the KwaZulu-Natal Department of Agriculture and Environmental Affairs (KZNDAEA) was the sole provider of extension support, predominantly the conventional type, with a focus on providing farmers with improved seeds, pesticides and synthetic fertilisers to increase productivity. The Department's objectives include providing extension support to farmers with special emphasis on developing emerging farmers in communal areas and supporting land reform beneficiaries. In addition, the Department aims to 'develop food security initiatives and promote small enterprises for youth, women and people with disabilities' (KZNDAEA website).

Emagengeni demonstrates some practical examples of what the two competing paradigms of extension support look like on the ground. The following sections offer a detailed description of farmers and households that are covered in the study. Attention is paid to their livelihood assets, livelihood activities and household food security situation. The sample of farmers who participated in the study includes: (i) farmers who receive extension support from the state, (ii)

farmers who receive extension support from Biowatch, (iii) households that are not active in farming anymore, (iv) farmers who receive no extension support from either the state or from Biowatch. The purpose of this descriptive analysis of households is to provide an understanding of the current status of livelihoods in Emagengeni, and subsequently to assess whether the state's and Biowatch's interventions demonstrate a clear understanding of their target group. The latter will be dealt with in Chapters 4 and 5.

### **3.2. Overview of uPhongolo municipal area**

UPhongolo local municipality is located in the north of Zululand district municipality of KwaZulu-Natal. The total population is estimated at 149 543 and the number of households is about 22 112 in approximately 104 settlements (IDP 2011/12). The municipal area largely consists of traditional areas that feature tribal land-holding patterns and high-density rural settlements. These areas are surrounded by sugar cane farms with isolated pockets of game farms. Income levels are low, with 66 percent of households receiving no income or less than R2400 per month. The traditional and rural areas are the most poverty stricken. Unemployment levels are relatively high even compared with other rural areas, and only 13.43 percent of the population is formally employed. Dependency levels are also high, with every employed person having to support 6.5 persons, of whom 3 are over 15 years of age, on average. The farming sector employs a significant number of people, which indicates the importance of the agricultural sector in the economy of the area. Such agricultural activities are primarily maize, beef and sugarcane production. Emagengeni is the local name for one of the wards in the traditional villages of uPhongolo municipality, and the population of this ward is estimated at 6000 people (IDP 2011/12).



Figure 1: Map of KwaZulu-Natal Northern Region

Source: [www.wheretostay.co.za](http://www.wheretostay.co.za)

### 3.3. Classification of households in relation to farming

The total sample of farmer households interviewed for this study is detailed in Appendix 1, which provides summary information regarding household composition, sex of respondents, number of household members, land size cultivated and its use, source of extension support,

source of labour, source of income and livelihood trajectories of each household in the sample i.e. 55 households. Emagengeni households in this study can be divided into two broad categories. On the one hand are small-scale farmers and on the other are former small-scale farmers. Firstly, I will give a detailed description of current farmers, followed by the second category of ex-farmers.

### **3.3.1. Small-scale farmers in Emagengeni**

There are two types of small-scale farmers found in this village: those who produce for household consumption only and those who farm to consume and to sell to local consumers within the village and, irregularly, to supermarkets. They are commonly referred to in South Africa as 'subsistence' farmers, they are mostly located in communal areas and they are predominantly black (Machethe and Mollel, 2000). They do not necessarily subsist on their own production, even though it contributes to meeting their households' food needs.

#### *A. Households farming only for household consumption*

Out of 45 current farmers interviewed, 30 indicated that they produce for household consumption and sometimes donate some vegetables to neighbours or relatives who ask. Half (15) of these farmers get extension support from the state and the other 15 do not (see Appendix 1). A more detailed account of each group is discussed in the next chapter. In the view of Cousins (2011), these are the small-scale farmers who produce to meet most of, or at least part of, their social reproduction needs. They produce only rain-fed crops such as maize, beans, pumpkins and a variety of fruits including peaches, bananas, avocados and mangoes.

All farmers in this category indicated that the availability of labour and of household income are the two factors that determine the amount of harvest they obtain each season. With the exception of 4 households who use hired labour, the rest of the farmers rely on family labour, which is often limited to two people per household, with the exception of school holidays when children also provide some labour. The labour constraint results in limited use of land, leaving some fields uncultivated. All 45 respondents indicated that if they could afford additional labour, they would cultivate more land which they have access to. Contrary to what Bernstein (1995) perceives when he regards small-scale farmers as 'rich peasants', i.e. those who accumulate land,



begin to employ wage labour and become capitalist farmers, nobody from my sample was doing any of that. In fact, only 2 respondents (see Appendix 1, households 17 and 18) indicated that they aspired to accumulate more land to produce for the market, the other 28 farmers in this category indicated they wished they had all the labour to produce more for their own consumption.

Only 3 out of the 30 households employ wage labour because they are constrained in terms of access to family labour (see Appendix 1, households 9, 16, 27 and 38). These are those who, due to old age, are no longer physically fit to work the fields, are not able to mobilise other household members to do so (either because they are absent or unwilling) and because of the income they receive from state grants, are able to hire seasonal labour and cultivate most of their fields. For such households, labour is hired during the ploughing, planting, weeding and harvest periods, which could be calculated as two months in a year.

Income also determines the size of land that each household is able to cultivate, and the money is used to purchase inputs (hiring of a tractor, buying seeds, animal manure and fertilizers) and for some to hire labour. Households with a higher income are able to cultivate larger pieces of land than those with lower incomes. Overall, due to the high costs of farming inputs, especially tractor services, none of the farmers in this category are able to cultivate their entire plots, including those who can afford to hire labour. All the farmers say that in the past they owned cattle and used it for ploughing, but many of their cows died due to diseases and drought, and were never replaced. Owning cattle also gave them access to free animal manure, so they did not have to purchase fertilizers from the shops.

All the farmers in this category see a significant contribution from farming to household food security, even though they still rely mostly on manufactured foods, which they purchase from the supermarket. The most common reason why these farmers do not sell their produce is that they do not produce any surpluses from their fields. In fact, due to labour and financial constraints they are not even able to produce enough for their households. Only 2 farmers (the ones that aspire to accumulate more land, explained earlier in this chapter) indicated that, if the government were to provide them with seeds for high value crops such as nuts, they would produce for the market (see Appendix 1, households 17 and 18).

*B. Households farming for household consumption and sale*

This category consists of women farmers aged between 45 and 70, the majority of whom regard themselves as heads of their households. One factor that distinguishes these farmers from the previous category is that these farmers have vegetable gardens which they established for own consumption and selling purposes, in addition to rain-fed fields. Out of my 45 respondents, 15 are in this category and all of them belong to a women's vegetable project called Impisethunjini, which means 'fighting hunger'. They are supported by Biowatch (more details on this category of farmers in the next chapter) and aim to produce enough food for them to consume most, and sell some of the produce. The food that is produced in the rain-fed fields is only for household consumption and includes crops and fruits such as maize, beans, pumpkins, bananas, peaches and avocados. The produce that is sold includes cabbages, onions, spinach, lettuce, beetroot, sweet potatoes, tomatoes and green peppers, and comes from the irrigated vegetable gardens. The reason why rain-fed crops are not sold is because Biowatch stipulates for each household to produce them only for own consumption because they can be preserved for about a year after harvesting, ensuring there is food for the most part of the year, especially the staple food maize. Fresh produce on the other hand is sold because it is produced and harvested throughout the four seasons of the year, enabling farmers to generate income in every season. Prior to joining Impisethunjini, none of the respondents in this category were selling their produce simply because they did not intend to. Another reason is that they did not have productive vegetable gardens due to water scarcity, and so they only focused on rain-fed crops to feed the household. It was only after joining the project, through which Biowatch trained them on how to produce with minimal water, that they were encouraged to sell to the local school, neighbours and even to the supermarkets in town. All of these households have a vegetable garden of 15m by 15m as per Biowatch recommendation and support and, due to the fact that they also consume some of the produce, this means they do not sell large volumes of vegetables, but enough to get income that they often use to buy airtime, electricity cards, bread and cleaning detergents.

None of these farmers use hired labour to cultivate their rain-fed fields. For these they all rely on family labour, which is similar to the category in the previous section. However, the practice is different when they cultivate their vegetable gardens, as here the group members provide labour to one another in a reciprocal manner. The sharing of labour only happens during land

preparation, which is said to be labour intensive because of the agro-ecological methods that Biowatch trains them to use, so all the group members go around helping each other until all the gardens are ready for planting. This practice is not voluntary but forms part of Impisethunjini's practice which is regulated by Biowatch together with the members.

### **3.3.2. Former small-scale farmers in Emagengeni**

A substantial number of households previously practiced 'subsistence' farming, but have ceased to do so. This category consists of women-, men- and child-headed households with ages ranging from 20 to 75 years old (see Appendix 1). From the sample that participated in this study, the longest period that these households have not farmed for is eight years and the shortest period is two years. This suggests a fairly recent pattern of de-agrarianisation. Their reasons for not farming anymore include the following:

- Lack of capital to purchase inputs such as seeds, fertilizers, pesticides and hire tractor services, mostly as a result of the death of family members who previously took responsibility for this function.
- Labour constraints, caused by death of elders in the household who were active in farming and also due to elders becoming physically ill and unable to work in the fields.
- Death of livestock, in particular cattle, which was previously used for ploughing and provided animal manure and was never replaced.
- Lack of fencing and difficulty with livestock roaming around and destroying the fields.

Baiphethi and Jacobs' (2009) study on the contribution of subsistence farming to food security in South Africa suggests that one other possible reason for the abandonment of agricultural production by some of the rural households is low productivity, but none of the participants in this study indicate that. Drawing on the work of Aliber (2005), Baiphethi (2009) points out that evidence exists of agricultural resources being underutilised and that this requires further investigation. The above-stated reasons partly explain why there are fields lying fallow in the communal areas in general. While a few households in the study decided to rather make the unused land available for housing for newcomers in the village, many have left their fields abandoned and indicate that they hope to utilise them again one day. The hope to be able to use the fields again is expressed only by those who gave up farming because of the difficulty with

livestock, and they suggest that they would farm again if grazing camps were to be constructed to keep animals away from the fields, suggesting a tension between small-scale farmers' aims for crop cultivation and livestock husbandry.

### **3.4. Livelihood assets and a livelihood typology for Emagengeni households**

The first part of this section outlines the different livelihood assets by applying the sustainable livelihoods framework in order to better understand the different categories of households in Emagengeni. This information is important because it will help to clarify which households are 'hanging in', 'stepping up', 'stepping out' or 'dropping out'. It will also help establish whether or not their livelihood type determines or is determined by their access to the state or Biowatch support programmes. This will be examined in the second part of the section. Given the fact that this study is about small-scale agriculture development programmes, the livelihood assets that will be discussed here are in relation to farming and household food security.

#### **3.4.1. Identification of livelihood assets and applying the sustainable livelihoods framework**

Five different categories of assets are observed and explained below:

##### *A. Natural capital*

Land and water are primary resources needed in order to farm. In Emagengeni, access to land does not seem to be a challenge because all households that participated in this study have access to at least some land. Land size differs from household to household and so does land use. The minimum size is 1.5ha and the maximum size is 5ha per household. This estimation is based on the fact that none of the respondents declared to have access to less than 1.5ha or more than 5ha in total. Households that have been there for many years (over 60 years) tend to be the ones with access to the largest pieces of land. The reason that is given for this is that in the old days land was allocated according to family size, with larger families given larger pieces than smaller families, and there was less competition for land due to the smaller population size – whereas more recently larger families did not get larger pieces of land, due to space constraints.

With regards to land ownership and security of tenure, all households in the study indicated that they do not own the land in the sense that they are not allowed to sell it. However, they have

security of tenure because they do have formal permission to occupy, obtained from the chief. None of the households have ever been threatened with eviction, and, my informants told me, even after some of the male heads of household died, their widows carried on without any problems related to land access.

The availability of and access to water is regarded as one of the biggest challenges for many households in Emagengeni. Only 2 out of the 55 households that participated in the study have water tanks which they purchased with their own money (see Appendix 1, households 5 and 13). All of these households fetch water from the nearby rivers and from a communal borehole, which is operated manually. Such water is used for cooking, cleaning and, by some, for watering vegetable gardens. Even though there are individual water taps per household provided by the local municipality, these had been dry for at least five months prior to my fieldwork. The two households with water tanks are able to harvest rain water during the rainy season, and express that they benefit a lot from this.

#### *B. Physical capital*

Access to transport is a challenge for many households of Emagengeni. Due to poor roads, mini-buses do not operate in this area, but instead there are local vans that transport people to the main road (N2), from which they can catch mini-buses to town. This means transport is generally expensive. All households in the study express that they buy most of their groceries in town (uPhongolo) and add that it is becoming unaffordable to get there as currently a return fare costs R36. They all have to use their limited income to pay for their shopping and transport costs.

With regards to access to means of communication, this does not seem to be a challenge in the area. All households in the study have access to a cellular phone, a radio set and a television set. Other means of communication especially with regards to community development activities is through the local schools. Elders in all households with school-going children indicated that they heard about the Department of Agriculture's plan to distribute seeds, from their children. The state officials often give public notices via the local schools, and the learners are then asked to take the messages home to their parents. Word of mouth is also a common practice for spreading and sharing information, including at gatherings such as church services and meetings of burial

societies in the village. Many members of the women's vegetable gardens project state that they found out about this project through their neighbours with whom they attend the same church.

### *C. Financial capital*

Financial capital varies from one household to another. All 55 households that participated in the study have a family member who receives some form of a state grant ranging between pension, child support and disability grants. Not all the households have additional sources of income, but for those that do, these include remittances from family members that work far away from home; income from selling vegetables from the gardens; a stipend from the Department of Transport for cleaning the roads; and informal businesses such as selling broilers, airtime and soft drinks. While members of Impisethunjini said that farming helps them to spend less money on buying food, farmers who don't have vegetable gardens and access to more labour spend most of their money on purchasing food from supermarkets.

Livestock (cattle and goats) ownership is for many households a safety net in times of financial crisis. Only 5 of the households in the study own cows, 10 own goats and 24 own chickens. The chickens are however not seen as an investment as they do not carry a high monetary value, so they are only kept for household consumption. The number of cows and goats owned varies from household to household, with eight cows being the highest and two cows the lowest. The number of goats owned per household varies from nine goats at the most down to two goats at the least. Households that own livestock in addition to receiving state grants, remittances and off-farm income such as selling soft drinks and airtime say they do not struggle to provide for themselves.

### *D. Human capital*

All respondents in the study have basic knowledge of farming, which they obtained by learning from their parents over the years. This includes knowledge such as soil preparation, inter-cropping, storing of seeds and livestock keeping. Many farmers indicate that they observed over the years that their basic knowledge is not always applicable anymore because the style of farming has changed. For instance, in the past they used animal manure exclusively, but today they also use fertilizers from the shops. Some of the respondents can recall when this change

occurred and indicate that it was during the time when government started agricultural development initiatives in the rural areas about 20 years ago.

This shift towards monetised inputs correlates with the arguments of Richter and Tapson (1995), who suggest that during the past decades prior to the end of apartheid, the strategy for agricultural development emphasised capital-intensive agricultural projects in the homelands. Other farmers add that they lost cattle because of drought and they did not receive any drought relief compensation from the government. This was when the use of tractors instead of cattle became popular, along with which came drought-resistant seeds and fertilizers. Realising that the tractors were faster, and the drought resistant seeds more resilient, more farmers opted for them and began to lose their 'traditional' methods of farming.

Farmers that are part of the Impisethunjini project indicated that through this project they were able to revive their traditional farming knowledge and skills, and decided to abandon conventional methods as these were more expensive. Other farmers said they were constrained by a lack of traditional knowledge, but they are also struggling to keep up with new technologies. They indicated that they do not always know which fertilizer to use for which type of soil, and which seeds go well with the type of fertilizers they are using. Due to these knowledge constraints, some harvests are better than others.

#### *E. Social capital*

About 30 out of the 55 respondents in this study belong to a farming organisation, and half of these are women who belong to the group supported by Biowatch, and have irrigated vegetable gardens and practice agro-ecological farming. The other half is a mixed group of men and women who practice conventional agriculture, and they are supported by the provincial Department of Agriculture and Environmental Affairs (KZNDAEA). The rest of the respondents do not belong to any network or organisation. All the farmers in both of the supported groups indicated that they benefit from their group membership, and such benefits include shared labour, knowledge exchange, and access to farming inputs and extension support; indeed, Biowatch and the KZNDAEA argue that they only support farmers who are members of their respective groups. All members joined the two groups through word of mouth, with the exception of the persons who initiated the groups. The rest of the respondents do not belong to

any group, but they all indicate that they know about the groups that exist in the community. Their reasons for not joining include that they are not interested in groups because of the politics involved and much prefer to work with their household members only. None of the respondents indicated that they are restricted from joining a group.

### **3.5. Household food security in Emagengeni: An overview**

The definition of food security by the Food and Agriculture Organisation (FAO) (2008) includes utilisation, stability, frequency, availability of and access to nutritionally adequate food. This definition suggests that for a person to be food secure, they should have means to access food whenever they need to, and be able to use it to meet their daily dietary needs. Some of the households in this study access food through both 'subsistence' farming and purchasing from supermarkets and also from local shops within the village, while others rely wholly only on shops and do not farm. I will give an outline of household food security status for each of the categories of households described earlier on in this chapter. This will help to keep track of whether there is a connection between what is happening on the ground and the state or Biowatch interventions, all of which will be dealt with in detail in Chapter 4.

#### **3.5.1. Households farming only for household consumption: what do they say about the status of food security at home?**

Maize is a staple food for all the households that participated in this study, and it is processed in different ways to suit the various forms in which it is consumed. In most cases maize cobs are processed to produce maize meal. On average, all participants indicated that they eat a dish made from maize meal at least twice per day. It is therefore not surprising that every farming household grows maize more than any other crop. Households that are able to grow and harvest maize and that produce maize meal enough to last for six months up to a year say that they regard themselves as 'food secure' (author's interviews with Dlangamandla, Dlamini, Ngwenya, 2013). The amount of maize harvested depends on the size of land, whether the farmers use animal manure or fertilizers, and if the livestock did or did not destroy the fields, varying from one season to another. Maize meal is often consumed with vegetables and meat, except in the morning when it is consumed as soft porridge with sugar and sometimes milk. All of these households indicate that they purchase meat (beef), chicken and sometimes pork from the supermarkets in town.



On average, meat is consumed at least three times a week, although households with fewer than 4 members and who received pension grants and those involved in informal businesses indicate that they eat meat every day. Those that keep chickens slaughter from time to time but mostly they buy frozen chicken pieces in town because their children like it much more. Vegetables such as pumpkins and beans are also common and produced by most of the households. Other commonly consumed vegetables include cabbage, onion, spinach, beetroot and tomato, and none of these are produced at home because these farmers do not have irrigated vegetable gardens. The consumption of fruits is also common to individuals in these households. Most of them have fruit trees which mainly produce summer fruits such as peaches and mangoes. Many households indicated that, during winter, they buy oranges and apples in town and eat fruits every second to third day of the week.

Overall, households find farming to be very beneficial as it saves them a lot of money (author's interview with Maphalala, 2013). All of them claimed that they do not like the fact that they have to buy vegetables such as cabbage from the shops and wish they had water and fencing to be able to cultivate vegetable gardens. With regards to the quality of food that they consume, whether fresh or manufactured, none of the participants are concerned with that. When asked, many of them said they were unable to tell any difference in quality. Their only concern is the price of food that keeps rising. Even those few that use hired labour say it is still cheaper to spend their income on farming than to purchase food from the supermarkets (author's interview with Dlamini, 2013). All the respondents in this latter category (who hire labour) indicate that they always have food for all members of the household and regard themselves to be food secure, suggesting that they are better off in terms of access to food and availability of cash incomes to purchase food than other categories of households.

### **3.5.2. Households farming for household consumption and sale: what do they say about the status of food security at home?**

What distinguishes this category of households from the previous group is that these households have irrigated vegetable gardens in addition to rain-fed fields, and this means they are able to cultivate a wider range of food crops. In addition, these farmers produce a variety of what they refer to as 'traditional crops' such as yellow, red and white maize, sweet potatoes, sorghum, sweet melons, pumpkins and a range of beans. All of these are consumed at home, and if the

harvest has been good due to the availability of rain and minimal damage by livestock, on average the food lasts for up to six months. An 80kg bag of maize meal costs R400 at the supermarket, and for the average-sized household, which is between six and eight members, it lasts for only one month (author's interview with Nhleko, 2013). Growing their own maize saves them a substantial amount of money (author's interview with Dlamini, 2013) Again, maize is often consumed in the form of maize meal, eaten with vegetables, or meat. These households produce vegetables throughout the year and they therefore do not buy vegetables. This is made possible by their agro-ecological method of farming and the fact that their vegetable gardens are protected by fencing (author's interviews with Siyaya, Dlamini, Ntshangase and Mbokazi, 2013).

All respondents said that all members of their households eat vegetables every day. Meat is also consumed every day, alternating between beef and chicken, and it is obtained from the supermarket in town. Just like in the previous group, those that keep their own chickens slaughter every now and then for their own use, still mostly they buy frozen chicken pieces, and the same applies to consumption of fruits.

When asked about the quality of food, many respondents reported that they prefer to eat their own type of maize as it is more filling and tasty than the maize meal from the supermarket (author's interviews with Ngwenya, Nhleko, Simelane, Siyaya, Dlamini, Msibi and Khanye, 2013.) They also say their fresh produce is of a better quality than that in the shops because they use animal manure, and they believe that is why it tastes better. All interviews regarded their households as 'food secure' because all their household members have access to food every day. All respondents indicated that farming contributes a lot to their household food security and they would not want to go back to a time when they did not have vegetable gardens and were wholly reliant on buying their vegetables from the shops.

### **3.5.3. Former farming households: What do they say about food security at home?**

Those households with financial assets (primarily state old-age pension grants) that have stopped farming, mostly because of old age, indicate that they are food secure. They buy all their food from the supermarkets in town. They also eat a lot of maize meal, vegetables, meat and fruits. Most of these households are relatively small in size with between two and four members, which allows the purchased food to last longer. The reason for the small number of household members

is mainly because the children no longer stay with the parents but have started their own families leaving the elderly behind (see Appendix 1). Many respondents said they are *not* ‘poor’ and they do not ‘starve’, as one respondent said, “*the government takes care of me every month, I receive the pension grant*” (author’s interview with Ncube, 23 June 2013).

Five households in this category struggle to access food because they do not always have money to do so (see Appendix 1, households 46, 48, 50, 54 and 55). These are the ones described in the previous section as ‘destitute’. Many of them say they seldom eat meat and fruits. They eat maize meal, cabbage and spinach most of the time. During those times when they do not have money to buy any food, many respondents say they ask their relatives and friends to donate some food to them. All of them regard themselves as food insecure.

### **3.6. Conclusion**

The link between food security and livelihood strategies of the household is articulated by Matshe (2009), suggesting that access to livelihood assets, institutional support and external environment play a crucial part in households’ ability to produce food and make a significant contribution towards increased food security. State social grants received by pensioners, children and people with disabilities are a major source of income in all the households in the study. In the view of Neves and Du Toit (2013) grants provide capital both for retail and to operate small-scale farming and this suggests a direct link between social grants and food security. Households in the study use social grants to purchase food from the supermarkets and in some cases to buy from other farmers in the village, but also grants are used to buy inputs such as seeds and to hire labour. In addition, social grants stimulate local economic growth by expanding the buying power with multiple effects (Neves and Du Toit, 2013). Based on the evidence above, I conclude that in Emagengeni there are no rich peasants as described by Bernstein (1995), and there is no ‘accumulation from below’ as Cousins (2011) puts it, but there are ‘subsistence’ farmers differentiated by land size and type of farming influenced by the nature of support they receive. These farmers farm in order to increase their food access.

The case of Emagengeni is not exceptional, because a number of studies on ‘subsistence’ agriculture and food security in South Africa indicate that while the number of farmers who farm as their main source of food has dropped, there has been an increase of those who farm for an additional source of food (Aliber, 2005). Although traditionally many rural households relied

exclusively on subsistence agriculture to access food, this is no longer the case as more rural households are dependent on markets (Baiphethi and Jacobs, 2009). Many farmers in Emagengeni share the same view, recalling that when they were growing up about forty to fifty years ago they never purchased food from the shops. Their households produced all the food. In my sample, the scales of production, the number of harvests and the duration of the availability of food, the types of crops, types of livestock and the contribution of farming to household income and food security vary from household to household. Such variations are dependent on the amount of labour that is available, size of land, access to and nature of extension support and the size of the household and their food consumption patterns.



## CHAPTER 4

### 4. Analysis of agricultural extension programmes in Emagengeni

#### 4.1. Introduction

In the preceding chapters two paradigms of small-scale agricultural development, conventional agriculture and agro-ecology, were discussed. It is observed that there is tension between the two competing ideologies, and while the discourses underpinning each of the two paradigms may appear different there are quite a few similarities in the practice. One noticeable difference is the types of farming methods promoted while, as I show here, similarities are found in the targeting and selection of beneficiaries. This chapter provides a detailed critical analysis of the state and Biowatch programmes, as experienced by the small-scale farmers who are supported by the two institutions.

The first part of this chapter provides an overview of the state extension programme in KwaZulu-Natal, explaining the types of programmes, their objectives, targeted beneficiaries, challenges and highlights. This is followed by a similar overview of the Biowatch farmer support programme, again paying attention to the objectives, targeted farmers, challenges and highlights. The analysis of farmers' experiences of extension pays attention to issues of productivity, access to farming inputs, skills and knowledge availability and constraints, access to farming infrastructure, labour regimes, access to markets and household food security. Each of these issues is examined in relation to extension support available to the farmers in Emagengeni. The last section of the chapter provides a discussion of the farmers' experiences with the two support programmes, followed by a conclusion.

#### 4.2. KwaZulu-Natal Department of Agriculture and Environmental Affairs agricultural extension programme: An overview

According to the local agricultural manager in uPhongolo area, Nondumiso Ndlovu (author's interview, 2013) the Department has five programmes to support small-scale farmers' development, and these are explained below.

(i) **Mechanisation** - This programme is designed to provide farmers with inputs like seeds, fertilizers, pesticides and implements such as tractors, ploughs and harvesters once they have

access to land. It is targeted at underprivileged communities and vulnerable households – but only those who have an area of land above a certain threshold – in order to increase their level of food crop production. This is a free service provided through the extension officers who distribute fertilizers, pesticides and maize seeds throughout the various wards in the provincial districts. With regards to the tractor services, farmers must have between 0.5ha to 2h size of land and are expected to complete application forms to request the tractor service. A list of all applicants is compiled at each ward and the extension officer responsible facilitates the process to bring the tractor to the village during land preparation periods (varies between September and November). There are about 250 farmers in Emagengeni (estimated figure) who request this service every planting season. With this service the Department aims to develop farmers towards self-sustainability, and so they are expected to take care of weeding, harvesting and marketing of the produce. The Department only provides part of the service. For the current financial year 2013-2014, the Department set aside a budget of R14m to be spent on mechanisation, planting about 20 000ha of land. In the 2013 Budget Speech the provincial Minister acknowledged that the 20 000ha target is quite modest and, due to the large number of poorly resourced farmers in the province, it should be doubled in the next financial year (KZNDAEA Budget Speech 2013/2014).

**(ii) Food security** - This programme aims to integrate the focus on issues such as promotion of traditional foods, indigenous chicken, and water harvesting techniques and advice in order to help poor households to produce vegetables for improved nutrition. The Department has embarked on a ‘One home-One garden’ campaign to encourage each and every home to at least have a door-sized garden. To support this, the Department distributes packets of vegetable seeds for free, of about ten varieties such as cabbage, spinach, carrot, onion, lettuce, green pepper and tomato. This programme aims to address malnutrition and it is again targeted at poor households. The Department plans to strengthen this programme and supply households with chickens (five per household) and water tanks. This has not yet been implemented but the provincial Minister has already indicated in the 2013 Budget Speech that R51m has been set aside for this programme.

**(iii) Infrastructure projects** –This is aimed at providing fencing and irrigation infrastructure, targeted at community gardens rather than household gardens. The reasons are that community

gardens benefit more people than household gardens, and the departmental budget is too constrained to provide fencing for every farming household – there are therefore economies of scale, at least for the state’s management role. The objective for the project is to assist farmers to generate incomes from community gardens, and the state also assists them to secure markets. Examples of markets include hawkers in public spaces such as the taxi rank, and procurement from community gardens by supermarkets, schools and hospitals. In the 2013 Budget Speech the provincial minister stated that R11.4m was set aside for irrigation infrastructural development across the province, to target community gardens. This programme has however not been implemented in Emagengeni due to water scarcity in the area.

**(iv) Livestock projects** – This project aims to improve the health of livestock and to increase livestock production in order to enable the export of meat products. It entails building dams for livestock, rehabilitating new dams, building and improving dipping tanks, providing poultry structures and fencing of grazing camps. This is targeted at livestock farmers, groups and individuals. For the 2013 financial year the Department aimed to focus on rehabilitating 66 dams, building and equipping 55 boreholes, rehabilitating 40 dipping tanks, training livestock farmers associations on animal health, breeding and production, holding livestock auctions and vaccinating and de-worming animals (KZNDAEA Budget Speech 2013/2014). Animal theft is of great concern in the province, and to combat this, the Department put aside funds (R36m) for the anti-theft measure of registering branding marks for livestock identification. None of the activities within this project are happening in Emagengeni, because there are no livestock commercial farmers in the village and this project is aimed at commercial farmers (author’s interview with Ndlovu, 2013).

**(v) Value adding** - This is aimed at increasing the financial value of raw agricultural products such as crops and livestock through processing of raw produce to make products such as jam and juice, and meat products such as sausages. To date, this is barely functional because of budget constraints. There is no money to purchase equipment for value adding and it has not been implemented in Emagengeni. Although the Minister speaks of value adding as an area of interest in the Department, there is no information pertaining to what has been done around it, nor where.

#### **4.2.1. Targeting and selection of beneficiaries**

The head of the extension recovery programme at the provincial office suggests that food security and poverty reduction are national government priorities, and therefore they become provincial priorities (author's interview with Moodley, 2013). The target groups are land reform farmers, black commercial (fully established) farmers, women co-operatives, emerging black farmers (starting off), and poor households of KZN with access to land and water. All target groups, excluding 'poor households', are selected through farmers' associations, the Land Bank (for distressed farmers) and the CASP programme (targeting the applicants). From these categories, one can observe that there is still a pervasive dualism, farmers have to be either commercial or subsistence (poor) in order to benefit from the state programmes. Poor households fall within the safety net programmes, and these are identified through profiling, which is done in conjunction with the Departments of Health, Social Services and Education. The process entails visiting different households to determine if they are 'poor' by looking at the number of people employed, income levels and the number of children attending school or not. This collaboration of Departments is called Operation Sukuma Sakhe ('Let us stand up and build). The nature of support differs from category to category. Mechanisation, livestock services, value adding, fencing and irrigation are for 'emerging' farmers and land reform farmers both of whom are assumed to be commercial or becoming commercial, and excludes poor farming households. Poor households get seed scoops to establish vegetable gardens, but if their land size is 1ha or more, they move to the next level where they receive food production packs through the mechanisation programme, and may get irrigation pumps and fencing if it proves to be justified and 'viable'.

Regarding the Emagengeni area, the local agricultural manager explains that the Department is working with a group of farmers belonging to Nkomfa farmers' association, a voluntary association of 50 farmers in total, which was formed in 2010 in order to access the state extension support (author's interview with Ndima, 2013). Ndlovu (author's interview, 2013) says that, for the Department, it is better to work with groups because it saves time and money. She adds that in many cases farmers organise themselves to establish a voluntary association, and then approach the local office for assistance. It is usually those people who take the initiative to visit the office and attend meetings who are best positioned to receive support.



#### **4.2.2. Implementation: Role of extension officers**

There are twelve extension officers working in this district and the estimated ratio of extension officer to farmer is 1:300 (author's interview with Ndlovu, 2013). To be an extension officer one must have a B-tech qualification in agriculture. In brief, the role includes the following:

- (i) Identification of targeted beneficiaries
- (ii) Giving advice about farming to farmers
- (iii) Training farmers on how to farm by means of demonstrations on site
- (iv) Mobilising communities to identify their needs
- (v) Distributing seeds, fertilizers and pesticides, arranging tractor services and identifying markets
- (vi) Assisting farmers to develop business plans to access funds in order to scale up production.

Extension officers are designated to support specific communities such as Emagengeni and interact directly with the farmers. They undertake regular visits to their designated wards, at least twice a month.

#### **4.2.3. Officials' own assessment of agricultural extension programmes**

##### **4.2.3.1. Challenges**

The implementation of the mechanisation programme is quite a challenge, because there are only 4 tractors to service 14 wards, of over 2000 farming households in total including land reform farms (author's interview with Ndlovu, 2013). This suggests that there is a higher demand for the service than the government can provide at a particular time – and of course the households need the tractor services around the same time. The distance between wards is huge, so the tractor may spend the whole day just driving from one ward to another. An additional challenge observed by the agricultural manager is that the Department's procurement procedures are not efficient, with too much red tape and the processes taking long. For instance, sometimes stock (seeds, fertilizers, etc) arrives late, even after the planting period has passed, so that farmers have to resort to other means to access these (author's interview with Ndlovu, 2013). If the tractor breaks or runs out of diesel, the process to get it fixed and for the fuel to be replaced can be a

long one which often results in farmers missing the planting period. The last challenge is that of budget constraints which limit the number of farmers getting support. There are not always enough inputs to supply the full number of targeted farmers in the area and this results in farmers having to divide the little quantities available amongst themselves and cut down on the size of land they cultivate (author's interview with Ndlovu, 2013).

Apart from these internal challenges, the state officials who participated in the study also raised some that are external. They indicated that farmers tend to depend on the programme and do not grow to become 'independent', as a result of which the Department helps the same farmers over and over again (author's interviews with Ndlovu, Moodley, Shozi and Mncwango, 2013). In addition, one provincial official believes that not everyone 'can be a farmer' and the distinction between a 'farmer' and a 'gardener' must be clearly stated.

*"Most of the people are backyard gardeners and that's where they must be. It is not viable for government to install a pump for such farmers. So they have to look at other innovations such as rain-water harvesting. They must look at indigenous ways of farming like mulching without huge government spending. The challenge is that people expect government to provide."* (Agricultural support services manager, author's interview, 27/05/2013).

Such a statement is a key component of the discourse on small-scale farmers and the poor in general. Among the state officials, there is a perception that those not growing into commercial production through reinvestment suffer from a psychological condition of dependency, rather than structural constraints that explain their inability to accumulate and expand. Other challenges recognised by state officials include access to markets, which is linked to the problem of farmers failing to produce high volumes in order to meet market demands. The assumption demonstrated by the state officials here is that supermarkets are the main commercial market and they need a supply of high volumes at all times (author's interview with Ndlovu, 2013). One official suggested that *"farmers also need to play their part in trying to secure markets and meet the demands, also there has to be a line between the role of the state and that of the farmers, which must be defined"* (Agricultural support services manager, author's interview, 27/05/2013). Again, here the narrative among the officials is that the state is being called upon to do things that

farmers should be doing for themselves, and they complain of a syndrome of dependency which is not sustainable and for which they blame the farmers.

#### **4.2.3.2. Highlights**

Only two highlights of the programmes are observed by the officials in the study: (i) mechanisation does assist farmers to reduce farming costs, which helps them to generate income and to grow; and (ii) the extension officers are trained in food security measures and there are translated booklets with graphics explaining how to grow the seeds that people receive. This contributes to the effective implementation of the food security programme (author's interviews with Ndlovu, Shozi and Mncwango, 2013).

### **4.3. Biowatch agricultural support programmes: An overview**

Biowatch has three focus areas as indicated by the agro-ecology manager, as explained below.

**(i) Household food security vegetable gardens-** This programme entails assisting a number of households to establish or revive their existing vegetable gardens using agro-ecological methods of farming. The primary aim is to ensure that each of these households has a supply of fresh vegetables for their own consumption throughout the year. Farmers are encouraged to sell to buyers in the community and to a supermarket in town if there is surplus. The role of Biowatch is to secure funds to purchase fencing, tools and equipment such as wheel-barrows for the gardens, give technical training on how to farm in an agro-ecological way, and on some occasions provide seeds and seedlings. Training is done in many forms, depending on the content, for instance if the training is on soil preparation and fertility improvement then it takes place on site, in one of the gardens. Other forms of learning include farmer-to-farmer exchanges and workshops (author's interview with Mkhalihi, 2013). In Emagengeni, Biowatch supports 30 households in total but only 15 participated in this study.

**(ii) Traditional crop fields and household seed banks -** Biowatch believes that a vegetable garden alone is not enough to provide food for a household as people also need to eat grains (e.g. maize), legumes (e.g. beans) and tubers (e.g. sweet potatoes), most of which are rain-fed crops. Influenced by its activism background of fighting against the introduction of Genetically Modified (GM) seeds especially in South Africa, Biowatch supports farmers to save their seeds and grow traditional crops in their fields (Biowatch website). This is separate from the

community vegetable garden which is irrigated (see Chapter 3 section on physical assets). Traditional varieties are encouraged because such crops are said to grow well in this region and have high nutritional value (author's interview with Dlamini – Impisethunjini, 2013). These include red, yellow and white maize, sorghum, pumpkin, sweet melon, mung beans, chick peas, juko beans, and others.

Biowatch encourages households to develop their own seed storage facilities, usually seeds are kept in recycled glass or plastic jars. The idea is that households should save seeds after every harvest so that they do not have to buy them at every planting season. Biowatch believes that the maize seeds that are handed out for free by the extension officers of the state are GM seeds and therefore perceived to be of inferior and harmful quality (author's interview with Mkhaliphi, 2013). The expectation from Biowatch is that each household should have a minimum of eight different types of traditional crops because that would give farmers a variety of crops and in case some do not perform well due to lack of rain for instance, they will still have something to harvest as often some crops do survive. These seeds are hard to find because the mainstream seed suppliers do not sell them, however they can be found in different rural communities in the province among farmers who have kept them over time. Biowatch organises seed festivals and seed exchanges, where farmers come together to exchange traditional seeds. All 15 households in the study that are supported by Biowatch have seed banks at home. The Biowatch focus is however not only on promoting traditional seeds but also on soil and water conservation, which is why it does not endorse the use of pesticides and artificial fertilizers. Instead, farmers are encouraged to use only animal manure, compost and integrated pest management methods (author's interview with Ntshangase-Impisethunjini, 2013).

**(iii) Social mobilisation-** This programme entails raising the awareness of farmers regarding their rights, especially when it comes to making choices of farming methods and seeds. Farmers are often linked through workshops with farmers from other provinces, most of whom are social activists concerned with land and agrarian transformation issues. Biowatch tries to empower farmers through knowledge and skills to be able to demand their rights from the different departments of the state, including local government. The idea behind the social mobilisation programme is to build the confidence of farmers through knowledge and to promote collective

action so that they are able to demand from the government what they see as beneficial for their livelihoods and resist what they are opposed to.

#### **4.3.1. Targeting and selection of beneficiaries**

Biowatch believes that to have an impact, the groups it works with should not have more than thirty members, as it is possible to find resources for that number of households and it is easier for such a group to manage itself (author's interview with Mkhalihi, 2013). The NGO targets men and women, but works with women most of the time because many men believe vegetable gardens are not for them (author's interviews with Mkhalihi, Mbokazi and Dlamini-Impisethunjini, 2013). There are no selection criteria, but the idea is to help those who are not receiving any support from the state (author's interview with Mkhalihi, 2013). Initially, the facilitator from Biowatch went to the area and introduced himself to farmers' associations, and those farmers who were interested joined the project. The first group with members of 30 households that get support should then, through the social mobilisation programme, be able to assist other households to also receive fencing and tools, but this time from the state. This however is not happening, and instead many people in Emagengeni come to Biowatch asking for support instead of approaching the state, because the work of Biowatch is very visible as they can see the fencing, the vegetable gardens from the members of Impisethunjini and so they wish to obtain the same (author's interview with Thabede, 2013).

#### **4.3.2. Implementation**

Biowatch spends most of its resources on organisational development of its farmers' groups, focusing on leadership, decision making, monitoring and evaluation skills. This is because these tasks are handled by community facilitators and group committees. The agro-ecology manager at Biowatch is only active in the initial stages, where farmers are introduced to the concepts of agro-ecology and traditional crops. This phase involves a lot of practical demonstration and regular visits to the gardens by Biowatch (two to three times a month). Agro-ecological methods of soil preparation that are encouraged by Biowatch require a lot of physical labour, as everything is done by hand and not machines. To make labour available at no financial cost to the farmers, the 30 members divide themselves into smaller groups of six, and each group selects a leader. The group members go around to each of the six gardens to assist with labour. Once the

soil preparation phase is over, each owner of the garden takes full responsibility for the rest of the activities that must take place. Group leaders are, however, expected to go around and do regular monitoring and evaluation of the gardens, to see if people adhere to the principles of an agro-ecological vegetable garden and assist each other where possible. This strategy of using the group leaders to train others has worked mainly because Biowatch has allocated a monthly stipend to the group leaders, depending on the availability of funds each year.

With regards to selection of group leaders given the availability of a stipend one of the group leaders explained:

*“I was selected by the group members, they said they did not like to travel and attend meetings all the time. I was determined to make this project a success so I accepted the responsibility. At that time, there was no stipend, this is new, but since we started getting a stipend about a year ago and it has created enemies. Some of the members of the project don’t even greet me anymore.”* (Impisethunjini group leader, author’s interview, 24/05/2013).

The agro-ecology manager provides on-going support to the group leaders around the issues of project management, giving training and workshops on new opportunities or threats that people should know about. The most crucial period, when Biowatch spends most of its time visiting the farmers, is the first year of establishing gardens. During the second year the agro-ecology manager is able to limit his visits to once every two months, and this frees up his time enabling him to move to another village and replicate the programme.

### **4.3.3. Biowatch’s own assessment of its agricultural support programmes**

#### **4.3.3.1. Challenges**

A key challenge is that it is difficult for Biowatch to link the farmers with state Departments where they can access funding support, as a requirement is often that the groups must be registered as co-operatives. All farmers who are supported by Biowatch belong to voluntary associations for collective action and not co-operatives, because they are not farming collectively or for commercial purposes. Another challenge is that Biowatch has limited capacity, both in terms of finances and of personnel, and therefore can only reach a very small number of farmers at a time. While there is a demand from many farmers in Emagengeni seeking support from

Biowatch, there is not enough capacity to meet it. Biowatch's pilot approach where only 30 households in the village received fencing leads to friction, as some who are not part of these 30 also demand fencing from Biowatch. At one time they even interrupted a meeting between Biowatch and the farmers (author's interview with Mkhalihi, 2013). They do not see the difference between the state Department of Agriculture and Biowatch, and often assume that it is the same thing. Apart from these challenges, Mkhalihi (author's interview, 2013) is concerned with the lack of commitment from some farmers, saying that they are trained, but when a farmer must go home to implement they do not practice what they have been told to do. An example of this is farmer Ngwenya (author's interview, 2013) who told me that she sometimes uses artificial fertilizer and mixes it with animal manure even though she knows that according to Biowatch it is not allowed. She does it because sometimes it is difficult and more labour intensive to collect cow manure as she does not have livestock. The perception that inputs for soil fertility are readily accessible in agro-ecological farming is thus untrue. Finally, explains the agro-ecology manager, there is a challenge with access to markets for those households that are interested in selling their surplus to the supermarket. The challenge is that they do not always meet the demand, as they are constrained by limited water and space (author's interview with Mkhalihi, 2013). The challenge however according to the farmers is not only limited to their inability to produce high volumes, but the poor communication between them and OK Supermarket, stating that they are not told well in advance what, how much and when they should supply, it is all done randomly (author's interview with Nhleko-Impisethunjini, 2013).

#### **4.3.3.2. Highlights**

Many farmers in the community approach Biowatch saying they are interested in agro-ecology. Even some extension officers from the Department of Agriculture say they would like to learn about agro-ecology because they can see the results when looking at the gardens that are supported by Biowatch. The agro-ecology manager at Biowatch said:

*“I spend time in the community; I even attend funerals just to hear how people speak about Biowatch. We get feedback from farmers, saying how the gardens have helped them. Farmers have managed to save a variety of seeds, have access to fresh vegetables across the year and they are generating income to support their children.”* (Agro-ecology manager, author's

interview, 24/05/2013). This statement partly explains why there is a demand for Biowatch support in this village; it is because of the accessibility of the official.

#### **4.4. Voices from the receiving end: A critical analysis of farmers' experiences of agricultural support programmes in Emagengeni**

##### **4.4.1. Small-scale farmers supported by the state**

The two major challenges facing this group of farmers are poor access to water and lack of means for fencing to prevent uncontrolled roaming livestock which destroy the fields. These are a priority and farmers strongly believe that addressing these challenges would improve their livelihoods, especially by increasing household food security. When asked about what, in their view, are the main challenges facing farmers, state extension officers agree that these are water and fencing.

The majority of these farmers farm for household consumption, although there are a few who would like to sell to the market. Currently, the farmers say that they obtain vegetable seed scoops from the state to help them establish food gardens under the food security programme (author's interviews with Dlangamandla, Madonsela, Dlamini, Nkambule, Siyaya, Mthembu and Khanyi, 2013) However, because there is not enough water for irrigation, plus there is no fencing to keep roaming livestock away, farmers are not cultivating any vegetable gardens and the seeds are kept in the households' cupboards. Farmers in this category are therefore only cultivating rain-fed crops, mainly maize and pumpkin. This is a case of mis-matching between an intervention and its targeted beneficiary, which is most likely caused by a lack of understanding of the realities on the ground.

From the mechanisation programme the farmers receive maize seeds, fertilizer and pesticides, and the state tractor comes to plough for them. Some farmers are very happy with this programme as it saves them a lot of money, while others are not satisfied because the tractor does not plough their entire plots due to time constraints (author's interview with Ndima-Nkomfa, chairperson, 2013). The Department's extension officers are aware of the tractor related challenges, but they do not know when it will be addressed (author's interviews with Shozi and Mncwango, 2013).



The major challenges remain unaddressed because the livestock and infrastructure programmes of the state target black emerging and established commercial farmers only. It is not targeted at farmers who only want to farm mainly for own consumption and yet have access to land up to 5ha. Emagengeni farmers say that if they were to get water tanks they would at least be able to harvest rain water. The state supports the idea of innovations such as rain-water harvesting, but there is no plan to execute it. Perhaps the reason for this is that the state is mainly concerned with investing its resources where it is likely to see returns (author's interview with Ndlovu, 2013). This is why most of these programmes are directed at commercial farmers, whether small or large. This group of small-scale farmers of Emagengeni therefore falls between the cracks and there is no programme that caters directly to their needs. They are neither black emerging commercial farmers, nor land reform farmers, and they are also not poor with access to only very small patches of land enough for a door-sized garden. They have more land than that and aim to produce at a larger scale. It seems that the available programmes were designed with only these categories in mind. In the next section I look at the impact of support on productivity.

### **Productivity: is it going up, going down or just staying the same?**

The farmers identify land size, availability of labour and inputs as the elements that determine productivity. Many farmers experience a drop in productivity with the changes in their livelihoods strategies over time. This drop is attributed to limited labour, land size in relation to availability of inputs, and difficulties with livestock roaming. On average each household cultivates a 0.5ha piece of land, even though many of them have access to up to 5ha each. The reason for this is that many households no longer have cattle to plough with and so they rely on using a tractor. The tractor service that is rendered by the state only ploughs one field per household (0.5ha). Those few that can afford to hire a private tractor to come, and plough an additional piece of land at R800 per ha, do so.

With regards to inputs they rely mostly on improved seeds, which they either receive from the state or buy from the shops and it costs about R20 per kilogram of maize seeds and R90 for 10kilograms of fertilizer: they do not save their own seeds. In addition, they rely on using artificial fertilizer, which is also received from the state or purchased from the shops in town. But the limited quantities that are received from the state are not enough for the entire size of their

plots, and again, only those households that have money are able to buy more. It is noted in the previous section of this chapter that, according to the officials, the state is constrained with resources and cannot purchase enough inputs for all the farmers. This means that farmers who do not have money to add on what they receive from the state can only cultivate 0.5ha of maize.

This is a totally different picture from about twenty years ago, when they still had cattle and they grew a variety of crops instead of only maize, which gave them a variety of food (author's interview with Dlangamandla, 2013). Livestock was kept in the communal camp during the planting season and only released in winter after all the fields had been harvested. This is not the case today as the camps do not have fencing anymore. During that time, many of these households were able to cultivate up to 5ha of their land and produced large volumes of food, which they ate throughout the year and even sold to some people in the village.

These farmers are concerned about the use of fertilizer, which they believe is also causing a drop in productivity. Three of the 15 farmers supported by the state say that it is not suitable for their soils as they get very low quantities of yields compared to their counterparts with a different type of soil. Extension officers are not knowledgeable about the technicalities of the fertilizer that they provide to farmers and so are unable to give advice (author's interview with Madonsela, 2013). Instead, extension officers are knowledgeable about establishing a vegetable garden, but there is no demand for that by this particular group of farmers. Five out of the 15 farmers still have livestock and say they use animal manure to mix with the artificial fertilizer, and in this way get better yields. However animal manure is scarce for those who do not have livestock. Farmers say that if they had a choice they would only use animal manure and not the artificial fertilizer (author's interview with Simelane, 2013).

The last challenge is that of roaming livestock. All farmers interviewed say they are competing with animals when it is time for harvest: the one who gets there first gets the most of the harvest. Only 3 households have fencing on their premises where they are cultivating crops and therefore do not have the challenge to deal with roaming livestock. They managed to buy fencing from the remittances they receive from their children (author's interview with Nkambule, 2013). The rest of 12 households are faced with this challenge every harvest season and they say it is a question

of luck: sometimes they are able to harvest most of their crops and other times the livestock consume most of it.

All 15 farmers interviewed indicate that they are happy with the support they get from the state because at least they are getting something, in their view that is better than nothing. But this is not what government is trying to achieve. Rather, the objective of government is to establish self-reliant farmers who are generating an income. Farmers want to farm for own consumption, as one woman said in an interview:

*“If we were to fence our fields, we would go back to growing our traditional crops. I am not interested to go to sell in the market, I am old. I can sell to people that come to buy from the house but not to make an effort to go sell. I want to farm to eat.”* (Author’s interview with Dlamini, 23/05/13).

#### **4.4.2. Small-scale farmers supported by Biowatch**

Similar to the group that is supported by the state described above, members of Impisethunjini are also faced with the problems of water scarcity, roaming livestock and lack of fencing, but add that they struggle with access to markets. Biowatch attempts to address some of these problems. About 13 out of the 15 farmers who are part of Impisethunjini’s project reported that gaining knowledge of agro-ecological farming has changed their lives for the better because they have established vegetable gardens and are generating some income from it. Biowatch specialises in training on vegetable production using agro-ecology as a method of farming. Through it they have managed to establish vegetable gardens despite the water crisis in the area. As Ntshangase says:

*“I have only been growing vegetables since joining the project in 2009, and before that I used to buy everything from the shops. Today we eat vegetables more than we eat anything else, and we don’t buy them but grow them at home.”* (Author’s interview with Ntshangase – Impisethunjini, 25/06/13).

This however does not suggest that water scarcity is no longer a problem, because farmers say if they were to get water tanks then they would be able to harvest and save rain water, and this would enable them to presumably expand their production. They acknowledge that Biowatch has

given them knowledge about water saving and recycling, but not all that they have learnt is implementable unless they have the right equipment. In addition, through farming in this way they have managed to diversify their crops and are now growing a wide variety of foods instead of only maize. Having a variety of food crops in the field is seen as a safety net: if one crop fails, due to unfavourable climate conditions or plant diseases, they do not lose everything because some crops are more resistant than others.

Through the household food security programme all members of this project get fencing material for their gardens, and this has partly addressed the problem of roaming livestock. Unfortunately, the fence that they receive is only enough for the vegetable gardens and not for the big fields so livestock roaming remains a challenge there, limiting production of field crops.

The positive attitude towards Biowatch is not shared by all, and two out of the 15 respondents were not so impressed with its contribution. An old woman in her seventies and a member of the project said: *“I do a lot of things myself here, I have not really seen the role of Biowatch that much”*, (author’s interview with Ntshangane-Impisethunjini, 24/06/13). This is partly due to her age, because she is not physically fit anymore and so she does not attend meetings and is unable to work with groups to share labour in a reciprocal manner. Another member also in her seventies was also not very impressed with the role of Biowatch, saying that: *“I don’t know what the role of Biowatch is: they help with the vegetable garden, [but] who can only survive on spinach?”* (Author’s interview with Gogo Dlamini-Impisethunjini, 24/06/13).

With regards to the growing of traditional crops and saving seeds, farmers are struggling and this is due to lack of fencing for the fields. They say they do not cultivate all their fields because they do not want to lose a lot of crops to livestock. So even though they have the knowledge and the skills for cultivating traditional crops and harvesting seeds, it is hard to put these skills into practice due to limited space as a result of lacking fencing. Biowatch believes it is the role of the state to provide the farmers with fencing for the fields, because the state has the resources and the mandate to support small-scale farmers. Mkhalihi of Biowatch says, *“We do not have the financial muscle to provide for all. We are more interested in pilots, for the state to see that if you do it right at the household level you can make a change”* (agro-ecology manager, author’s interview, 25/05/2013). Farmers believe fencing would make a huge difference, as one woman in

her sixties said: *"I am old now, [I] can't attend workshops and trainings and learn new things, I send my daughter as she will take over, but getting fencing would make me go young again."* (Siyaya-Impisethunjini, author's interview, 24/05/13). This suggests that, given the right opportunities and infrastructure, this elderly woman is confident that she would be able to scale up her farming, even without additional labour or capital.

None of the farmers show any concern about the importance of collective action and mobilisation, regardless of Biowatch's effort to mobilise the farmers around the politicised issues of seeds and farming methods. Farmers say they have been made aware of the importance of saving their own seeds and farming agro-ecologically, but it ends there. They have no desire to take these issues up with the government to advocate for different types of public support. In fact, some of the farmers say they are not against the use of chemicals and fertilizers, even though they are often told at workshops that it is not good and they should reject it. One of the farmers says: *"I use Biowatch methods but I [also] do use artificial fertilizers and mix it with cow manure and compost. Although it is not encouraged, it works for me, the yields are higher."* (Author's interview with Zwane-Impisethunjini, 26/06/13). This raises the impression that while Biowatch has positioned itself to be on the side of the farmers, helping them to fight for their rights to protect their traditional farming systems, some farmers are not actually interested in that. It further suggests that Biowatch does not have a bottom-up mandate to help farmers to resist GM seeds and conventional agriculture, but rather its impetus comes from the top, from Biowatch itself.

Biowatch's expectation that the first 30 households that benefit from the establishment of gardens will take it upon themselves to go out and mobilise their community to demand alternative forms of farming support from the state is unrealistic. These farmers do not regard themselves as activists, and they never indicated that they were interested in becoming that. It is therefore not surprising that after they receive fencing, the knowledge and equipment, all for free, they only focus on their own farming and not on social mobilisation. It seems that Biowatch as an organisation has its own ideologies about an agro-ecological movement of small-farmers who are working together to transform conventional agriculture, and yet this does not seem to be the thinking amongst the farmers. So there is a disconnection between the vision of Biowatch and

that of the farmers. That being said, many farmers are happy that Biowatch is reviving the agro-ecological farming and seed saving practices, because they are benefiting from it.

**Productivity: is it going up, going down or just staying the same?**

Productivity is going up in the vegetable gardens of farmers supported by Biowatch: according to my informants, the yields are good and the farmers are harvesting throughout the year, with different vegetables for different seasons. But that is not the case in their cropping fields. Thirteen out of 15 farmers in this group say that it is because they use animal manure and compost to fertilize their soil that they have high yields. The two farmers who have a different opinion say animal manure alone is not enough, and therefore they mix it with chemical fertilizers bought from the shop.

In agro-ecology, farmers are encouraged to plant at different stages, so that not everything is harvested at the same time. In this way they are able to harvest every month, which also helps to minimise waste (author's interview with Mkhalihi, 2013). When it comes to growing traditional crops in the fields, production is not going up, but rather it fluctuates: sometimes it is less, and sometimes it is the same as in previous seasons. If the harvest has been good, Siyaya (author's interview, 2013) claims that they have food that on average lasts them for six months with the exception of only two households (see Appendix 1, household numbers 11 and 13) that have fenced fields, and so harvest crops that last them for the whole year.

All 15 farmers who were interviewed are constrained by a lack of tractor services, fencing and about five of these do not have enough farming inputs, especially animal manure, to apply in the fields. Biowatch does not provide a tractor service, as that is, in its view, the role of the state to fulfil. All farmers in this group say they know about the tractor service and they do apply to receive this service, but they never get it. One of the group leaders in Impisethunjini project farmers says:

*“We asked the Department of Agriculture for a tractor, it came but the plough broke. It was not fixed, instead it went to assist those homes that had their own ploughs and assisted them, using their ploughs.”* (Author's interview with Dlamini, 25/06/13).

Given the weakness of the state's ability to effectively implement its mechanisation programme, whenever there is an opportunity to provide these services, the extension officers will prioritise the groups they already work with the most (author's interviews with Mncwango and Shozi, 2013). In this case, Impisethunjini is probably seen by the extension officer in the area as a Biowatch project and therefore not a priority. The extension officer indicates that it would not matter to them which group is prioritised if there were enough tractors to service the entire village, but because resources are scarce and they have to report to their seniors about impact, they must prioritise (author's interview with Mncwango 2013). Another possibility is that the extension officers take advantage of the fact that Biowatch provides similar services to this community and thus relieves some of the burden on the state. The unavailability of the tractor service means that those farmers who can afford to hire a private tractor do so and are able to cultivate at least 1ha of the fields, and those who do not have resources to hire one cultivate manually, covering only 0.5ha.

Again the issue of roaming livestock remains a challenge, and it determines how much harvest each of these farmers takes home after harvesting. Another constraint is the scarcity of animal manure. About nine of the households in this group have livestock (cows, goats and chickens) and this provides them with animal manure. Animals are kept in the kraals at night, and the manure is collected in the morning, when the animals are released for grazing. Members of such households say they have fertile soils and it produces good quality crops, but it would be better if they did not share their crops with roaming livestock. One member of Impisethunjini says, *"If I could afford a tractor, I would hire more land, so [as]to have enough food for the whole year."* (Author's interview with Mbokazi, 27/05/13). Many of these farmers appreciate the knowledge and skills that Biowatch provides them about growing traditional crops and using agro-ecological ways of farming, but they say that times have changed and it is not as easy as it used to be. One of the group leaders comments:

*"We used to plough with cows, and later the tractors were introduced so we started using tractors because they were faster. But they started to become expensive and we could not afford it. So we bought food from the shop as it was cheaper to buy than to farm. We did not know we were buying poison. The way it was advertised it made those who ate it to be regarded as civilised! Now it is hard to go back."* (Author's interview with Dlamini, 27/05/13).

What this suggests is that knowledge and skills benefit those households the most that have means to access a tractor service, enough animal manure and fencing, or at least a combination of the former two and fencing. It is therefore not as simple as most of the debates in favour of agro-ecology often make things sound. It is not enough to focus only on providing knowledge about the practices of agro-ecology instead of livelihood strategies of the farmers, and whether or not they have access to supporting infrastructure and inputs to implement these.

### **Who is buying agro-ecologically grown vegetables and does it matter that they are grown in that way?**

About 13 out of the 15 members of Impisethunjini who were interviewed are producing also to sell. They sell to the local school, people in the community and sometimes to OK Supermarket in town. They say it is easier to sell to the school and to the community members than to OK Supermarket in town, because there are no transport constraints as everything is within walking distance. People in the community like their vegetables. They say the taste is different from the ones they get from the supermarkets and farmers believe that it is because of the way that they farm (author's interviews with Nhleko, Ngwenya, Dlamini, Dlamini, Simelane, Khanyi, Siyaya and Ntshangase, 2013). Biowatch connects farmers with the local OK Supermarket by introducing the project members of Impisethunjini with the shop manager, and assists them with the negotiations to do business.

There are however problems with selling to the supermarket that are raised by the farmers such as the fact that agro-ecological production methods do not elicit any premium in terms of price in the market. In addition, the supermarket determines the buying price and not the farmers. One of the project members says:

*“We compete with established white farmers at OK. Lately there has been a farmer who also sold his vegetables to OK and on top, he gave them herbs for free. We can't afford to do that and so we lose out. He has already secured the market by doing this. They do not care that our lettuce does not have chemicals. We put so much labour and love into growing it but they do not realise. We do however hope that God will help us and make them realise that we produce better quality food than the ones whom they buy from.”* (Author's interview with Dlamini, 15/05/13).



Biowatch places a great emphasis on the quality and health of the products that are produced agro-ecologically, and this is often in the light of campaigning against GMOs, which are believed to be unhealthy. This explains why the farmers who they support are beginning to speak about quality, taste and the negativity of using chemicals. It is however not clear what it is exactly that Biowatch is trying to achieve by organising market connections for the farmers, such as the one described above. Is it for farmers to generate income, or is it to convince the supermarkets to sell agro-ecologically grown produce so that it is accessible to consumers? If the primary aim is to make agro-ecologically grown produce more accessible to consumers, then I think the priority should be to sell locally in the village. The reason for this is that farmers get less money for their produce when they sell to supermarkets, and the supermarkets sell at a higher cost to consumers. If farmers sell locally, they make it affordable for their consumers, most of whom earn low incomes anyway, plus there are no additional costs such as for transport. To support this, one farmer says: *“If we could get a secured market, we would be so happy. OK Supermarket scores more from buying from us, as they buy at R6 but sell at R9.”* (Author’s interview with Nhleko, 15/05/13). Another reason is that these farmers are not primarily farming for the market, but for their own consumption, and they sell to get a bit of income, therefore they do not produce high enough volumes to meet the demand of the supermarket. For example, Nhleko adds to say: *“I farm to have food like vegetables, and sell to have my own pocket money and not to ask my husband for everything.”* (Author’s interview with Nhleko, 15/05/13). The situation explained in this section shows the difficulty of farmers in Emagengeni to ‘step up’ in their livelihood trajectories, and such difficulties are as a result of wider market conditions which largely favour resourced-farmers.

#### **4.5. Conclusion**

This chapter highlights the difference between the state and Biowatch in terms of the nature of extension support provided by these two institutions. The state uses the training and visiting system (chapter 2) and in the case of Emagengeni the role of the extension officer is limited to distributing seeds, fertilizers, pesticides and arranging tractor services. Farmers do not find this system very effective as it does not fully address their knowledge constraints with regards to the use of the improved inputs provided to them. It is also notable that the nature of extension support provided by the state is designed to support small-scale commercial farmers and most of the suggested roles of the extension officers are not applicable to the farmers in this study. The

inability of the extension officer to provide knowledge on the use of the inputs provided to the farmers suggests that there is still a capacity gap, even though attempts to improve the capacity of extension officers, for example the extension recovery programmes, have been made (Chapter 1).

Biowatch, on the other hand, uses strategies such as farmer-led research and farmer-to-farmer learning (Chapter 2). Farmers supported by Biowatch find this style of learning to be effective, especially in increasing their farming knowledge base. Biowatch tries to achieve a larger footprint by paying the group leaders in the project to facilitate learning exchanges and to do monitoring. However, the effectiveness of this model is not very clear.



## CHAPTER 5

### 5. Discussion and Conclusions

#### 5.1. Introduction

The aim of this thesis, articulated in the first chapter, is to look critically at the nature of small-scale agricultural development interventions currently available to farmers in Emagengeni village in uPhongolo. In doing so, I first locate the thinking behind both the conventional and the agro-ecological farming paradigms by exploring whose interests each ideology seeks to advance, and which ideas are supported or rejected in the linked debates. In chapter 3, I provide a description of the types of farmers that are found in the study site, based on the field data collected, looking at livelihood assets and strategies. In chapter 4, I explain what the state and Biowatch interventions look like in practice and what the farmers think of the two, based on their experiences. The core focus of this final chapter is to review to what extent these interventions, as guided by different ideologies, are able to address the challenges faced by small-scale farmers, particularly those in communal areas. I assess the 'fit' between the support systems offered and the assets, priorities and livelihood strategies of the farming households themselves. I focus on the outcomes for livelihood trajectories and class differentiation. Attention is paid to the agricultural development discourses, looking closely at the following elements:

- (i) The ways in which the officials who are responsible for developing and implementing these programmes speak about small-scale agriculture, particularly their underlying assumptions;
- (ii) Their use and understanding of concepts such as food security, small-scale farmers, markets, viability, food sovereignty, farming technology and farmer-led development; and
- (iii) Their perceptions about why small-scale farmers succeed or fail.

In this chapter, I revisit the research objective and questions (Chapter 1) to establish the extent to which my findings corroborate the views in the literature (Chapters 1 and 2). I focus on the issue of targeting of beneficiaries, paying attention to the relationship between livelihood assets and access to state or Biowatch support. This is followed by an analysis of livelihood trajectories and class differentiation that is emerging as a result of the two interventions, and a conclusion. In

addition I focus on household food security, particularly how the concept is understood by the state officials and Biowatch personnel in the study.

## **5.2. Targeting of the beneficiaries: who is best positioned to receive agricultural development support, and who is not?**

### **5.2.1. Farmers supported by the state**

The general manager for Strategic Support Services in the provincial office at DAE identified the following target groups as government priorities:

*“We target land reform farmers, commercial black fully-established farmers, emerging black farmers (starting off), indigent people of KZN with access to land and water to help them to grow things through the food security programme. We select through organised labour, Land Bank for the distressed farmers and CASP programme looking at those who applied for it, safety net programmes for those in social grants through Sukuma Sakhe.”*(Author’s interview with Moodley, 27/05/2013).

With regards to the nature of support for the given categories of farmers, he adds that:

*“The nature of support differs from category to category. Mechanisation is for emerging farmers, we give them inputs and plough for them. [For] farmers in the bottom category, we give them seed scoops as they are very poor they need to take care of themselves. To run a tractor you should at least have half a hectare to plough. If the poor households have a hectare and more, then they move to the next level where they get a food production pack (plough, fertilizer, chemicals and seeds) they may get irrigation pump and fencing if justified as viable.”*(Moodley interview, 27/05/2013).

Contrary to the above, the study reveals that farmers supported by the state in Emagengeni do not fit into any of the prescribed categories, which is why Alcock (2013) refers to such farmers as the ‘unknown’ farmers. What makes these farmers ‘unknown’ is that their reasons for farming, their scale and numbers, and their farming priorities and strategies, are not clear according to many state documents (Aliber and Hart 2009). While state documents such as the White Paper on Agriculture of 1995 and the DAFF integrated development plan of 2010 recognise that small-scale farmers in the communal areas are a majority and well-targeted interventions have the

potential to contribute meaningfully to improve their livelihoods, most interventions are geared only towards commercially-orientated farmers. Due to the diverse nature (in terms of livelihood assets, land size, reasons for farming) of farmers in this study, while the support they receive is generic, the outcomes are differentiated. This confirms the relevance of the policy recommendations from different researchers, suggesting that support needs to be well targeted to meet the varying needs of small-scale farmers (Altman et al, 2009). In an upcoming section I indicate why some farmers benefit more than others from these interventions, but first I offer a reflection on Biowatch's targets and purposes.

### **5.2.2. Farmers supported by Biowatch**

The agro-ecology manager at Biowatch points out that their programmes are targeted at those farmers who do not receive support from the state (author's interview with Mkhalihi, 2013). It appears that Biowatch tries to fill in the gaps where the state is not able to, because not only do they target those who do not receive state support, but their approach is more geared towards addressing the diverse needs of subsistence farmers. This approach confirms what Phuhlisani (2008) indicates to be a trend in the nature of extension support by most NGOs, to apply a farmer-led approach that puts the farmers in the centre and this is partly attributed to their understanding of the nature of rural livelihoods.

The study reveals that there are more households which would like to be supported by Biowatch, but the limited number of farmers that Biowatch is able to support in this village is 30 households only. This is an indication that extension services cannot rely only on NGOs but public investments are crucial (Christoplos, 2010). There is an underlying assumption that everyone is poor in Emagengeni, demonstrated by both Biowatch and the state in their generic way of selecting farmers to support. The Biowatch official pointed out that there are no selection criteria *per se*, but it is those farmers who express an interest to be supported who are 'randomly' identified. The noted result of this assumption is that Biowatch might be willing to work with 'subsistence' farmers but both the state and Biowatch programmes are looking for self-initiators and tend to exclude those households with fewer capital assets, and this in some ways perpetuates existing inequalities. I elaborate in the next section.

### 5.2.3. What determines access to support from the state or Biowatch?

From the livelihoods assets and strategies analysis provided in chapter 3 one can conclude that especially those farmers who have more social and financial capital than others, access and take advantage of the state or Biowatch support. The social capital I am referring to here is the ability to belong to a certain community association or project, which then enables the farmer to connect with external institutions such as Biowatch. There are limits to who can join and who cannot, and while these are mostly determined by how people relate to each other in this particular village, interventions also set their own requirements. One of the members of Impisethunjini who attended a meeting in the school, which was called by the teachers and where Biowatch introduced its programmes, explains that *“after learning about Biowatch I went around to a few neighbours, mostly the ones I go to church with and told them about this opportunity and that they must join and they did.”* (Author’s interview with Ngwenya, 17/05/13). It is the same also with the Nkomfa farmers’ association that is supported by the state: members recruit each other through church or family, i.e. through social networks.

Currently, the households that have limited sources of income, work occasional piece jobs and are mostly dependent on child grants, are not farming. As Andrew et al (2003) argue in their review of reasons for under-cultivation in communal areas, one of the reasons why people are not farming is that they do not have the capital (to buy inputs and hire a tractor), opposing the claim made by the state that they prioritise poor households at the lowest income levels. In Emagangeni, the poorest households cannot afford to farm at all and these are the ones that are ‘dropping out’ and become poor peasants (see Appendix 1, households 46, 48, 50, 54 and 55).

Regarding the issue of financial capital, households with multiple sources of income are better positioned to stretch the limited resources that they receive from either of the two institutions. In that way they get to produce more than their counterparts who are completely dependent on the two institutions to provide these. The same goes for households that own livestock, these have access to free manure which they mix with fertilizer that they get from the state, and it gives them more yields than others who do not. The implication is that both interventions tend to privilege those with some income streams so that they can invest into farming, and so contribute to class differentiation.

With regards to other assets like knowledge and skills, again only those few households with financial means are able to purchase equipment that is often needed in order to apply the knowledge. A better understanding of livelihood strategies of the targeted beneficiaries would help maximise the benefits and ensure that it is the households with poor access to resources that benefit the most from the agricultural development programmes. Sender (1995) suggests that a more thorough analytical categorisation of rural households is required: one that takes into consideration, among other things, gender, form of production and availability of labour. The next section looks at class differentiation that is emerging due to these two interventions.

### **5.3. Livelihood trajectories**

In this section I apply the ‘hanging in’, ‘stepping up’, ‘stepping out’ and ‘dropping out’ framework to discuss the impact of the state and Biowatch support to different households. I pay attention to the conditions that enable households to ‘step up’, and the interventions of both the state and Biowatch that enable people to do so. Finally, I look at the assumptions that underpin these interventions. Given the fact that this is a micro study, the livelihood trajectories presented here are only an overview of the current status and people’s self-reporting, and do not reflect the changes over time which most life history studies and longitudinal panel surveys are able to do.

#### **5.3.1. Who is ‘hanging in’ and why?**

The majority of households that practice small-scale farming, whether it is for sale or own consumption, and those that have stopped farming but own financial capital, can be categorised as those that are ‘hanging in’. This is because they all have assets and engage in livelihood activities in order to maintain existing livelihood positions (Dorward et al, 2009). The supply of farming inputs, tractor services and infrastructure (fencing) provided by the state and Biowatch to various households helps them to ‘hang in’ and a discontinuation of the supply of these is most likely to result in a ‘dropping out’ of those with less financial assets. This is because households that depend mainly on farming are at more risk of dropping out than those with multiple livelihood strategies, including those that live off-farm (Mushongah and Scoones, 2012).

### **5.3.2. Who is ‘dropping out’ and why?**

Households that have ‘dropped out’ are those that have stopped farming because they did not have enough income and labour to continue farming after the death of a family member who provided these. Mushongah and Scoones (2012) suggest that ‘dropping out’ and ‘hanging in’ may happen suddenly, after death of livestock or a family member, and the inability to recover from such shocks may cause the household to move between these two ranks. In my study none of the households that are ‘dropping out’ are receiving support from either of the two institutions, partly because of my approach for the selection of beneficiaries, which favours those who have stronger social networks. However, this raises the question of causation: are those who are ‘dropping out’ doing so because they are not receiving the support of either institution, or are they not receiving support from either institution because they have already dropped out? The criteria for selecting beneficiaries by both the state and Biowatch explained in the previous section of this chapter which looks for self-initiators implies that households in this category are not receiving support because they have dropped out. Once a household has dropped out, it becomes even harder to become visible, take initiative and participate in social activities because no matter how little, visibility requires money.

The state and Biowatch also perpetuate this kind of exclusion because both institutions prefer to work with groups or ‘projects’ rather than with individual households – as this renders their own work easier and more effective in terms of time spent and impact – and their selection criteria do not offer room to identify the most vulnerable households. As a result, most of these households resort to off-farm employment in the local municipality, cutting grass along the road which is often seasonal, and therefore their main source of income remains the state grants (especially child support grants). They sometimes work for their neighbours who hire them as daily wage labourers, during planting and harvesting seasons, and are described by Bernstein (1995) as ‘poor peasants’ who become ‘classes of labour’.

### **5.3.3. Who is ‘stepping up’ and why?**

Only three out of 55 households studied are ‘stepping up’, meaning they are making investments in their assets in order to expand their current livelihood activities (Dorward et al, 2009). Those households that accumulate assets through off-farm activities, such as transport services and



informal trading on the residence premises, are the ones that can increase their income. Since they are able to replace lost livestock, they are in a much better position to recover from such shocks. These households also benefit the most from the state and Biowatch support because they are able to increase the size of land they farm and have more to harvest. Those that sell their produce generate more income and are able to invest it in business activities, such as informal trading.

In my study nobody is 'stepping up' through reinvestment in farming, which draws into question the whole logic of agricultural policy discussed earlier.

Mushongah and Scoones (2012) highlight that 'stepping up' or 'stepping out' may be possible in periods of positive and conducive wider economic prosperity, but that is not the case in this study. Households in this category may not necessarily move a rank down (i.e. to 'hanging in') should they cease to receive support from the state or Biowatch, because they are not only dependent on farming. At the same time they are not able to accumulate, reinvest or expand through farming. The proposed transition from subsistence to commercial farming contained in policy documents discussed in chapter 2 is not evident. The significance of my findings is that farming should be supported alongside off-farm employment initiatives, farming is not a full-time job as most farmers engage in other different livelihood strategies.

#### **5.3.4. Who is 'stepping out' and why?**

The three 'stepping up' households are the ones that are also 'stepping out' because they are all engaged in activities enabling them to accumulate assets and create a pool of savings, which they can always use to invest in future activities that are likely to bring more financial returns (Doward et al, 2009). Their ability to 'step out' may not be directly linked to the support that they get from either the state or Biowatch, but the support does contribute to their household food security, thus freeing up money that they would otherwise have used to buy food, and making it available for other household needs. In their livelihoods study in Zimbabwe, Mushongah and Scoones (2012) found that households that were 'stepping out' were able to do so because they were able to cultivate more land, increase their livestock base, and were receiving remittances from their family members. Different patterns are observed in the livelihood strategies of the three households in this category as their reasons to 'step out' are not

because of improved and increased agricultural production scale but it is due to off-farm activities (see Appendix 1, households 5,11 and13).

#### **5.4. What can be said about class differentiation of the small-scale farmers in the study?**

Using Cousins' (2011) class-analytical approach to small-scale farming the following categories of farmers are identified in Emagengeni:

##### **5.4.1. 'Petty commodity producers' producing to partially meet their social reproduction needs**

Cousins (2011) argues that small-scale farmers cannot reproduce themselves outside of existing commodity paths, such as access to markets for both inputs and outputs, even if these farmers depend on family labour and farm mainly for own consumption. Farmers who are part of the Impisethunjini project, which is supported by Biowatch, can be regarded as 'petty commodity producers' because they engage in some form of small productive enterprise based on family labour, and they engage with the formal value chain to access some inputs and markets all of which are based within the capitalist system (Cousins 2011). Some of the members of Impisethunjini are selling into formal markets such as the OK supermarket in town, but most of them sell informally in the village. Cousins (2011) adds that such farmers sometimes hire labour, however my findings in Emagengeni suggest otherwise. None of the members of this project in the study use hired labour. One reason for this could be that farming is treated as a household chore and not a form of employment. In cases where friends or relatives give a hand during planting or harvesting periods, they are paid in kind and not in cash. With the support from Biowatch, these farmers provide reciprocal labour on each others' land, and are able to get farming inputs and pull together their labour, and in that way they achieve higher outputs.

##### **5.4.2. 'Petty commodity producers' producing enough to meet most of their social reproduction needs**

The majority of the farmers who participated in this study farm for their households' own consumption and they do not sell their produce. In his analysis, Cousins (2011) indicates that some commodity producers fail to reproduce due to factors such as drought, death of livestock and old age. These farmers then become dependent on selling their labour or on state grants to survive. Contrary to his analysis, findings in this study suggest that farmers who cannot provide

labour because of old age use their state pension grants to hire labour. They do not sell their produce, but they still find it more affordable to invest their non-farm income in farming for own consumption than to buy all their food from the shops. The support that they receive from the state helps to meet some of their needs for farming inputs and mechanisation. Yet there are those households that are no longer able to produce for own consumption, and those are referred to in the previous sections as ‘dropping out’.

#### **5.4.3. ‘Petty commodity producers’ producing enough to make profit and accumulate capital**

This class of smallholders, which Cousins (2011) refers to as ‘the missing middle’, is characterised by its ability to produce enough to sell and accumulate capital which is re-invested into the business, and allows for enterprise expansion and hiring of labour.

Such farmers were not found in Emagengeni. While three farmers indicated that they aspire to producing consistently for the formal market, the majority of the participants in the study want to farm for own consumption and sell surpluses locally to their neighbours. One of the policy options to support small-scale farmers suggested by Hall and Aliber (2010) is that the state should support many small-scale farmers to maintain their current activities, but help them to expand in terms of scale and productivity in order to raise incomes. This would enable what Cousins (2011) refers to as ‘accumulation from below’. Whether there is room for the farmers in Emagengeni to expand and fit in this category is something that is still to be explored.

### **5.5. Discussion of the findings**

#### **5.5.1. Background**

Food security, extension, markets, poverty reduction, subsistence farming, commercial farming, agro-ecology, productivity and improved technology are amongst the concepts that dominate the debates about small-scale agricultural development in this study. While most of these concepts are common in the discourses of both conventional and alternative paradigms of agricultural extension support, the difference lies in the ways that they are understood and used. This often influences the types of interventions and the style of implementation promoted. I focus on the concept of food security because it is one of the key objectives of both the state and Biowatch,

and because understanding the food security status of the households in this study is one of my research questions.

### **5.5.2. The state thinking reflected by the provincial and municipal officials**

Altman et al (2009) indicate that the meaning of food security is not clear: there is no particular, widely accepted measure of food security in South Africa, and so it is also not monitored. This is a major concern given the high numbers of food insecure households, and requires urgent attention. The problem with these kinds of uncertainties with regards to the meaning and measurement of food security is that it results in interventions that are not appropriate to address it. Findings of this study indicate that within the different spheres of government, food security is understood in diverse ways.

The understanding of the concept by the general manager for Strategic Support Services in the provincial office at DAE is limited to the household's ability to have a vegetable garden to improve nutrition. The food security programme of the state in KZN (Chapter 4) specifically speaks about a 'home garden' (which can be as small as the size of a door), and to cultivate a home garden does not make one a 'farmer'. This is an indication that 'subsistence' farmers are not understood as farmers and their contribution to households' food security is undermined in official thinking. In reality, 'subsistence' farmers in Emagengeni are cultivating land that is between 0.5ha and 5ha, varying from one household to another including livestock keeping, and making a significant contribution to their household food security (Chapter 3). This confirms research findings by Baiphethi and Jacobs (2009), suggesting that due to increasing food prices, many rural households engage in farming for their own consumption.

Extension officers are critical of their own programmes, for instance, one extension officer indicates:

*“Giving the farmers vegetable seed scoops is not helping and it is not enough. These people have big fields and they need fencing and water to enable them to produce a variety of food and in that way we can say they are increasing their food security.”* (Author's interview with Shozi, 26/06/2013).

Extension officers have little or no influence on provincial authorities who are in charge of developing extension programmes. Rather than learning from practitioners, the direction of the programmes comes from the national DAFF office, is located in broader government policies and integrated development plans, and is informed by the ideology in favour of smallholder commercialisation.

The IGDP of 2010 acknowledges that there is not enough information available regarding subsistence farmers in South Africa (Chapter 2). If there is not enough information to understand this sector, the interventions to support it are likely to be misguided and this is exactly what is happening in Emagengeni. For example, the local agricultural manager says that the problem with the farmers in Emagengeni is that they do not want to grow, yet every year they expect the state to provide them with inputs. 'Growth' in this case means that with the help that the farmers receive from the state, they should be able to increase their yield and engage with the market. With regards to extension support, policy reviews (Chapter 2) do not stipulate how 'subsistence' farmers should be serviced by extension officers, but instead the focus is on those farmers who want to develop into commercial farmers, and who appear to have the potential. Programmes such as MAFISA and CASP are aimed at assisting small-scale farmers and subsistence farmers develop into 'viable' commercial enterprises. The perception that all subsistence farmers aspire to become commercial enterprises is a myth, and indicates that there is a limited understanding within government of the realities of people's livelihoods strategies on the ground.

### **5.5.3. The Biowatch thinking reflected by the agro-ecology manager**

Biowatch works on the premise that 'subsistence' farmers produce primarily for their own consumption, and they should be supported to do that, however if there are opportunities for them to engage on the market then this should be encouraged. In terms of scale, in its thinking Biowatch does not limit food security to vegetable production only (fresh produce), but also looks at traditional crops produced in the fields. The concept of agro-ecology is central to Biowatch's interventions and approach. There are different perceptions about how this concept is understood, which can be misleading. The official at Biowatch says:

*“We promote agro-ecology because it is natural, ecological, you don’t buy inputs but use what you have and so it is sustainable. At the end of the day there will be food sovereignty for those who adopt agro-ecology.”* (Mkhaliphi interview,24/05/13)

Firstly, the idea that, in agro-ecology, inputs are readily available for free is misleading because in reality this is not the case. In Chapters 3 and 4 farmers emphasise that farming is not the same as it was when they were growing up: nowadays if farmers do not have livestock then they don’t have free animal manure. It may be true that agro-ecological farming does not depend a lot on bought inputs that are expensive and can only be purchased from the shops, but nor are agro-ecological inputs are not entirely free (Altieri et al, 1998).

Biowatch’s objective is for small-scale farmers to achieve ‘food sovereignty’ (Chapter 2). The perception here is that if farmers produce agro-ecologically they will be able to produce everything that they consume, and therefore they would not need to buy food from the shops, in other words living a truly ‘subsistence’ life. Bernstein (2013) suggests that it is quite limiting to think of subsistence farmers as outside of capitalism, but they should rather be viewed within the existing value chains. This implies that using inputs such as animal manure, compost and traditional seeds alone will not transform the food system. In both the Biowatch and the state programmes, there is too much emphasis on productivity, and too little attention on the agrarian structure, which reflects a poor understanding of these concepts and what they mean in practice.

Biowatch’s thinking is influenced by the ideology of the transnational peasants’ movement La Via Campesina and their work in places such as Brazil in particular (Chapter 2). However, the context is different in South Africa given the high concentration of supermarkets providing cheap foodstuffs in rural areas. The agrofood system is dominated by vertically-integrated corporate powers. In this context, often these peasant movements are very strong in articulating the problems associated with conventional agriculture and why it must be transformed, however they are weak in articulating what those alternatives should really look like in different contexts on the ground. Biowatch demonstrates a good example of this weakness because their approach is limited only to agronomy, rather than to the political economy of the agrofood system. The idea of family farming which La Via Campesina advocates for does not exist anymore in Emagengeni. Farmers are constrained in terms of control over labour, with only one and

sometimes two people per household (often older women) available to provide labour, which often means that they can only cultivate smaller pieces of land. There is no way that they are able to grow everything that they need to eat.

There is another contradiction in the Biowatch approach when it comes to access to markets. The idea with agro-ecology and food sovereignty is that people should eat food that is produced locally by the farmers using the agro-ecological way of farming. It opposes the exporting and importing of food from afar, and encourages direct interaction between farmers and consumers. However, in Chapter 4, farmers say that Biowatch organises for them to sell their produce at the supermarket in town, where their produce is not even identified as agro-ecological or 'organic'. The challenges of small-scale farmers are not only limited to the agronomy, yet both the state and Biowatch interventions are mostly geared towards increasing yields and productivity, rather than to market relations.

## **5.6. Conclusion**

I return to the research questions as outlined in the first chapter of this thesis, and highlight key findings in response to each of these. On the status of household food security the thesis concludes that households in the study are food secure. For most households food is obtained mainly through purchasing from supermarkets with the state social grants as the main source of income. The contribution of farming to household food security is significant in many of these households and therefore an increase in appropriate agricultural support could strengthen it even more. Regarding livelihood assets and strategies that the households use in order to access food, income and security, a relationship between livelihood assets and access to agricultural extension support is observed. Households with stronger social and financial assets are best positioned to receive support from the two interventions in the study.

The study has revealed that in Emagengeni there are more households that practice farming for own consumption than those that farm to sell, and yet they are not getting appropriate support. The nature of support that is given to the farming households in the study particularly by the state is limited and this is because the state programmes are generic and biased towards those farmers who seek to make profit. This confirms what commentators such as Cousins (2011) say which is that the problem with the generalised use of the term 'small-scale farmers' is that it does not distinguish between different types and situations of farming households within labour and

other market conditions. The limited number of extension officers in relation to a large number of farmers to be serviced coupled with insufficient supply of resources such as tractors and seeds weaken the intervention.

Biowatch's involvement, however, demonstrates a better recognition of 'subsistence' farmers and their potential to increase household food security, than state programmes. The type of farming that is promoted by Biowatch is geared towards farmers who do not necessarily make profit through farming, for example seed saving helps farmers to produce their own seeds and not have to buy seeds. This approach is influenced by what Haug (1999) describes as the 'ecological phase' of agricultural extension, suggesting that farmers should rather be viewed as social actors who do their own trials to improve productivity. Biowatch is however limited by staff capacity and funding, and so it can only support a very small number of farmers at any given time. The selection criteria that are applied by both the state and Biowatch do not explicitly allow for the selection of poorly-resourced farmers i.e. those with the least livelihood assets. As a result, marginalised households remain excluded and in that way inequalities are reproduced.

On the issue of the logic behind the state support to small-scale farmers, the findings in this study have contradicted the claim made by the state, in its use of the term 'emerging' farmers, with which it implies that farmers reinvest in farming as the basis for accumulation. The farmers who sell their produce in this study express little confidence in re-investing in farming and this is due to a lack of certainty about markets and recovery strategies from the risks associated with farming. Linked to that, my findings are contrary to the theory and the Zimbabwe findings of Mushongah and Scoones (2012) on households 'stepping out' due to re-investment in agriculture. My findings do not support this theory. In fact they tell a quite different story. These findings thus question the whole logic of current agricultural policy as discussed in Chapter 2 of this thesis.

In conclusion, contrary to Cousins' (2011) class differentiation theory, my findings suggest that 'subsistence' farmers prefer to use hired labour, they do not engage in the formal market and they do not use or buy inputs (seeds, fertilizers, pesticides). In addition, those farmers who do sell their produce do not hire labour and they are mostly selling informally. Therefore the three



categories suggested by Cousins are limiting because they exclude a group of farmers for whom farming is a livelihood of considerable importance, the extent of which this thesis has demonstrated.



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## LIST OF INTERVIEWS

### Households of Emagengeni

Names provided	Gender	Date	Place
Zithulele Simelane	F	24/06/2013	Emagengeni
Ziphilele Siyaya	F	24/06/2013	Emagengeni
Senzeni Ndaba	F	24/06/2013	Emagengeni
Sono Dlamini	F	26/06/2013	Emagengeni
Thandukwazi Dlamini	F	26/06/2013	Emagengeni
Cyprian Dlangamandla	M	26/06/2013	Emagengeni
Cebile Nomvula	F	26/06/2013	Emagengeni
Mandla J. Mncwango	M	24/06/2013	uPhongolo
Vontolo Siyaya	M	22/05/2013	Emasithokoze
Gogo Sithole	F	23/05/2013	Emagengeni
Mavis S'bongile Mahloba	F	21/05/2013	Emagengeni
Evelina Mahlobo	F	21/05/2013	Emagengeni
Sara Ngwenya	F	23/05/2013	Emagengeni
Mavis Nhleko	F	15/05/2013	Emagengeni
Harriet Ntshangase	F	15/05/2013	Emagengeni
Busisiwe Ngwenya	F	15/05/2012	Emagengeni
Khothisizwe Dlamini	M	15/05/2012	Emagengeni
Sophie Dlamini	F	15/05/2013	Emagengeni
Phiwe Thandi Dlamini	F	16/05/2013	Emagengeni
Ntombiza Msibi	F	22/05/2013	Emagengeni
Masiyaya Ngwenya	M	16/05/2013	Emagengeni



Sizakele Ngwenya	F	16/05/2013	Emagengeni
Nosphiwe Ntshangase	F	16/05/2013	Emagengeni
Madlamini Siyaya	F	16/05/2012	Emagagegi
Nobuhle Khanye	F	16/05/2013	Emagengeni
Bonisiwe Khanyi	F	17/05/2013	Emagengeni
Gogo Siyaya	F	22/05/2013	Emagengeni
Ncengimpilo Mbokazi	F	17/05/2013	Emagengeni
MI Ndima	F	17/05/2013	Kwa Nkomfa
Shalakaqa Mthembu	F	17/05/2013	Emagengeni
Gogo Nkambule	F	17/05/2013	Emagengeni
Mkhulu Ndlangamandla	F	17/05/2013	Emagengeni
Sarafina Dlamini	F	17/05/2013	Emagengeni
Madonsela	F	17/05/2013	Kwa Nkomfa
Maphalala S'mangele	F	18/05/2012	Emagengeni
Buyisile Dlamini	F	18/05/2013	Emagengeni
Thithi Ngwenya	F	18/05/2013	Emagengeni
Jabu Maphalala	F	18/05/2013	Emagengeni
Khanyisile Mathabela	F	20/05/2013	Kwa Nkomfa
NG Mathabela	F	20/05/2013	Kwa Nkomfa
Samkelisiwe Nhleko	F	20/05/2013	Kwa Nkomfa
Sindisiwe G Ncube	F	20/05/2013	Kwa Nkomfa
Nombuyiselo Yamsile Zwane	F	20/05/2013	Kwa Nkomfa
Khumkile Ncube	F	20/05/2013	Kwa Nkomfa
Thoko Ndlangamandla	F	20/05/2013	Kwa Nkomfa
Thobile	F	21/05/2013	Emagengeni

Thulisile Siyaya	F	22/05/2013	Emagengeni
Mivah Thobede	F	21/05/2013	Emagengeni
Ntombifuthi Nkosi	F	21/05/2013	Emagengeni
Betty Nkosi	F	21/05/2013	Emagengeni
Gogo Mahlobo	F	21/05/2013	Emagengeni
Elina Msibi	F	21/05/2013	Emagengeni
Nelisiwe Ngwenya	F	22/05/2013	Emagengeni

### Key informants

Name	Date	Position	Place
Lawrance Mkhalihi	24/05/2013	Agro-ecology manager, Biowatch	Mtubatuba
Nondumiso Ndlovu	20/05/2013	Agricultural manager, Kzndae Phongolo	uPhongolo
Kuben Moodley	27/05/2013	Agricultural support services manager, Kzndae	Pietermaritzburg
Die Shozi	26/ 06/2013	Extension officer, Kzndae Phongolo	uPhongolo
Mandla Mncwango	26/ 06/2013	Extension officer, Kzndae Phongolo	uPhongolo

## APPENDIX 1:

### Total Sample of Farmer Households Interviewed in the Study

	Household farmer type	Total number of hh members	Sex of member interviewed	Estimated age bracket of member interviewed	Land size and use (land currently utilised, not total of land owned)	Source of extension support	Sources of labour	Sources of income	Livelihood trajectories
1	Farming for sale & own consumption	8	Female	50-60	0.5ha: maize, pumpkin, fresh vegetables	Biowatch	Own, project members	Pension & child grants	Hanging in
2	Farming for sale & own consumption	7	Female	50-60	0.5ha: maize, pumpkin, fresh vegetables	Biowatch	Own, project members	Child grant, remittances, produce sales	Hanging in
3	Farming for sale & own consumption	9	Female	50-60	1.5ha: maize, pumpkin, fresh vegetables, 2 cows	Biowatch	Own, project members	Child grants, piece jobs, produce sales	Hanging in
4	Farming for sale & own consumption	6	Female	40-50	0.5ha: maize, fresh vegetables	Biowatch	Own, project members	Piece jobs, child grants, produce sales	Hanging in
5	Farming for sale & own consumption	10	Female	60-70	2ha: maize, variety of 'traditional' crops, fresh vegetables, 10 chickens, 3 cows	Biowatch	Own, project members	Child grants, informal shop, transport business, produce sales	Stepping up and out
6	Farming for sale & own consumption	3	Female	30-40	0.5ha: maize, fresh vegetables, 18 chickens	Biowatch	Own, project members	Child grants, piece jobs, produce sales	Hanging in
7	Farming for sale & own consumption	10	Female	60-70	1ha: maize, variety of 'traditional' crops,	Biowatch	Own, project members	Pension and child grants, produce sales	Hanging in

8	Farming for own consumption	3	Female	70-80	0.5: maize, fresh vegetables, 5 goats	Biowatch	Own	Pension & child grants	Hanging in
9	Farming for own consumption	2	Female	60-70	1ha: maize, variety of 'traditional' crops, fresh vegetables, 11 chickens	Biowatch	Hired	Pension grants, remittances	Hanging in
10	Farming for sale & own consumption	5	Female	70-80	1ha: maize, pumpkin, fresh vegetables, chickens, 9 goats	Biowatch	Own, project members	Pension grant, produce sales, livestock sales	Hanging in
11	Farming for sale & own consumption	5	Female	20-30	1ha: maize, variety of 'traditional' crops, fresh vegetables	Biowatch	Own, project members	Child grant, informal shop, produce sales	Stepping up and out
12	Farming for sale & own consumption	8	Female	60-70	0.5ha: maize, pumpkins, fresh vegetables, 3 goats, 12 chickens	Biowatch	Own, project members	Remittances, produce sales	Hanging in
13	Farming for sale & own consumption	8	Female	50-60	1.5ha: maize, variety of 'traditional' vegetables, fresh vegetables, 8 goats, 21 chickens	Biowatch	Own, project members	Remittances, produce sales, informal shop, transport service	Stepping up and out
14	Farming for sale & own consumption	8	Female	60-70	1.5ha: maize, variety of 'traditional' vegetables, fresh vegetables, 4goats, 17 chickens, 2 cows	Biowatch	Own, project members	Pension & child grants, produce sales	Hanging in
15	Farming for sale & own consumption	11	Female	60-70	0.5ha: maize, fresh vegetables, 8 chickens	Biowatch	Own, project members	Pension & child grants, produce sales, remittances	Hanging in
16	Farming for own consumption	10	Male	70-80	1.5ha: maize, beans, 13 chickens, 8 cows	kzndae	Own, hired	Pension grants, remittances	Hanging in
17	Farming for own consumption	11	Male	40-50	0.5ha: maize, 2 goats	kzndae	own	Piece jobs, child grants	Hanging in

18	Farming for own consumption	3	Male	50-60	1ha: maize	kzndae	Own	Piece jobs, remittances	Hanging in
19	Farming for own consumption	3	Female	70-80	0.5ha: maize, pumpkin, 7 chickens	kzndae	Own	Pension grant	Hanging in
20	Farming for own consumption	7	Female	50-60	1ha: maize, beans, pumpkin, 11 chickens	kzndae	Own	Child grants, piece jobs, remittances	Hanging in
21	Farming for own consumption	4	Male	70-80	1.5ha: maize, beans, pumpkin, 6 chickens	kzndae	hired	Pension grants, remittances	Hanging in
22	Farming for own consumption	6	Female	60-70	1ha: maize, pumpkin, 14 chickens	kzndae	Own	Pension grant, remittances	Hanging in
23	Farming for own consumption	6	Female	60-70	0.5ha: maize, 5 goats	kzndae	Own	Pension grant, remittances	Hanging in
24	Farming for own consumption	11	Female	60-70	1ha: maize, 22 chickens	kzndae	own	Pension & child grants, piece jobs	Hanging in
25	Farming for own consumption	9	Female	40-50	1ha: maize, 3 goats, sweet potatoes	kzndae	own	Remittances, child grant, piece jobs	Hanging in
26	Farming for own consumption	7	Female	50-60	0.5: maize, sweet potatoes, 8 chickens	kzndae	own	Remittances, piece jobs	Hanging in
27	Farming for own consumption	3	Female	60-70	1ha: maize, sweet potatoes, 17 chickens	kzndae	hired	Pension grants, remittances	Hanging in
28	Farming for own consumption	8	Female	60-70	1ha: maize	Kzndae	own	Pension & child grants, piece jobs, remittances	Hanging in
29	Farming for own consumption	8	Female	40-50	1ha: maize, sweet potatoes, 9 chickens	kzndae	Own	Child grants, remittances, piece jobs	Hanging in
30	Farming for own consumption	5	Female	60-70	0.5ha: maize, pumpkin	kzndae	own	Pension & child grants, remittances	Hanging in
31	Farming for own consumption	13	Female	50-60	1ha: maize, beans, sweet potatoes	N/A	own	Child grants, piece jobs, remittances	Hanging in
32	Farming for own consumption	5	Female	30-40	1ha: maize, sweet potatoes, chickens	N/A	own	Pension grant, piece jobs	Hanging in
33	Farming for own consumption	3	Female	60-70	0.5ha: maize, beans,	N/A	own	Pension grant,	Hanging in

	consumption				sweet potatoes, 12 chickens			remittances	
34	Farming for own consumption	2	Female	20-30	0.5ha: maize, sweet potatoes	N/A	own	Child grant, remittances	Hanging in
35	Farming for own consumption	6	Female	70-80	1ha: maize, sweet potatoes, 22 chickens, 3 goats, 3 cows	N/A	own	Pension & child grants	Hanging in
36	Farming for own consumption	5	Female	30-40	1ha: maize, pumpkin,	N/A	own	Pension & child grants, remittances, piece jobs	Hanging in
37	Farming for own consumption	3	Female	30-40	0.5ha: maize	N/A	Own	Piece jobs, child grants	Hanging in
38	Farming for own consumption	10	Female	60-70	1.5ha: maize, 4 goats, 24 chickens	N/A	hired	Pension & child grants, remittances	Hanging in
39	Farming for own consumption	11	Female	60-70	1ha: maize, sweet potatoes, 17 chickens	N/A	own	Pension & child grants, remittances	Hanging in
40	Farming for own consumption	7	Female	60-70	1.5ha: maize, beans, 11 chickens	N/A	own	Pension & child grants	Hanging in
41	Farming for own consumption	7	Female	60-70	0.5ha: maize, 6 chickens	N/A	own	Pension & child grants	Hanging in
42	Farming for own consumption	5	Female	50-60	0.5ha: maize, pumpkin, beans	N/A	own	Child grants, piece jobs	Hanging in
43	Farming for own consumption	9	Female	60-70	1ha: maize, beans, 6 chickens	N/A	own	Pension & child grants, piece jobs	Hanging in
44	Farming for own consumption	6	Female	40-50	0.5ha: maize, sweet potatoes	N/A	own	Child grants, piece jobs	Hanging in
45	Farming for own consumption	7	Female	50-60	1.5ha: maize, beans, 12 chickens, 2 goats	N/A	own	Child grants, remittances, piece jobs	Hanging in
46	Not farming anymore	13	Female	20-30	N/A	N/A	N/A	Child grants	Dropping out
47	Not farming	6	Female	20-30	N/A	N/A	N/A	Child grants,	Hanging in

	anymore							remittances, piece jobs	
48	Not farming anymore	7	Female	20-30	N/A	N/A	N/A	Child grants	Dropping out
49	Not farming anymore	5	Female	30-40	N/A	N/A	N/A	Child grants, piece jobs	Hanging in
50	Not farming anymore	8	Female	30-40	N/A	N/A	N/A	Piece jobs	Dropping out
51	Not farming anymore	3	Female	20-30	N/A	N/A	N/A	Child grant, remittances	Hanging in
52	Not farming anymore	5	Female	40-50	N/A	N/A	N/A	Remittances, informal shop, formal employment	Stepping up and out
53	Not farming anymore	8	Female	50-60	N/A	N/A	N/A	Pension & child grants, remittances, piece jobs	Hanging in
54	Not farming anymore	4	Male	40-50	N/A	N/A	N/A	Piece jobs	Dropping out
55	Not farming anymore	8	Female	50-60	N/A	N/A	N/A	Piece jobs	Dropping out