Emerging Farmers in Water User Associations
Cases from the Breede Water Management Area

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Mini-Thesis

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"… history reminds us that walls can be torn down. But the task is never easy. True partnership and true progress requires constant work and sustained sacrifice. They require sharing the burdens of development and diplomacy; of progress and peace. They require allies who will listen to each other, learn from each other and, most of all trust each other."
Barack Obama.

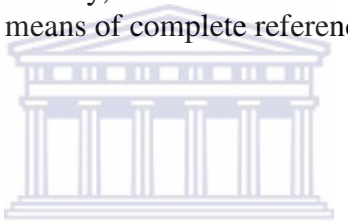
Dedication

For Erica Muchedzi – Saruchera,

Somewhere between dreams and reality, hopes and wishes meet.

Declaration

I declare that *Emerging Farmers in Water User Associations, Cases from the Breede Water Management Area* is my own work, that it has not been submitted before for any degree or examination in any university, and all the sources I have used have been indicated and acknowledged by means of complete references.



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ABSTRACT

Water User Associations (WUAs) are new water institutions created by the National Water Act (Act no.36 of 1998). The new institutions are meant to replace Irrigation Boards (IBs) that are seen as serving the narrow interests of white commercial farmers. Membership of WUAs comprises established large scale commercial farmers as well as emerging farmers (usually small scale farmers who are beneficiaries of the government land reform programme). WUAs are seen as ideal platforms for co-operation and skills transfer between commercial and emerging farmers, as well as a platform for stakeholder participation in water resources management. Emerging farmers claim that they are not getting sufficient government support to practice meaningful agriculture and that the WUA does not bring them any tangible benefits. The investigated the participation of emerging farmers in the business of WUAs and the benefits that accrue to the emerging farmers by virtue of this participation. This was done through semi-structured interviews, observations and use of secondary data. The study area was the Breede Water Management Area (WMA), one of the nineteen WMAs in the country. It concludes by showing that while some kind of co-operation exists, it is not enough to address skills transfer and promote effective stakeholder participation.

KEY WORDS

Integrated water resources management

Catchment management agency

Water user association

Emerging farmer

Commercial farmer

Co-operation

Participation

Skills transfer

Infrastructure

Benefits

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Acronyms

CMA	Catchment Management Authority
DLA	Department of Land Affairs
DOA	Department of Agriculture
DWAF	Department of Water Affairs and Forestry
HDI	Historically Disadvantaged Individual
IB	Irrigation Board
IWRM	Integrated Water Resource Management
WMA	Water Management Area
WUA	Water Users association
WUG	Water User Group

Chapter 1

Introduction

1.1 Study Background

South Africa is changing its water institutions, doing away with the apartheid legacies and creating what is purporting to be a more sustainable system consistent with the advent of Integrated Water Resources Management (IWRM). While prior to 1998 water management was done by central government and white farmers, the *Water Act of 1998* changed this. The Act provides for new institutions that allow for water resources to be managed by the users at the lowest possible level. The highlight of the new Act is the removing of past inequalities and including the historically disadvantaged individuals (HDIs) into water resources management. At catchment level, Catchment Management Agencies (CMA) will take care of water management, while at a more local level, water users should come together to form Water User Associations (WUAs). Government is investing considerably in the new institutions in a quest for sustainability in water resources management

WUAs, as new water institutions, have worked elsewhere around the globe, notably in Turkey (Yercan et al, 2003), mainly to reduce government expenditure, and sometimes, for conflict resolution (Sokile et al, 2003). They have not had much success in other countries, notably in the southern African case of Zimbabwe and Malawi (Tapela, 2002; Nkoma and Mulwafu, 2004). Their major drawback is that they usually ignore existing institutions (van der Zaag, 2005; Maganga, 2003), and therefore, end up causing more confusion and conflicts. In other words, WUAs do not always achieve the expected outcomes, and may actually achieve a reverse of expectations (Swatuk, 2005).

In South Africa, incorporating HDIs into WUAs has been encouraged as a matter of policy, but research on the ground shows that these people do not realise much from their inclusion (Faysse, 2003). The government encourages this inclusion in the hope that stakeholders such as emerging farmers, as members of HDIs, may improve their access to

irrigation water through shared waterworks with commercial farmers (DWAF, undated, b). WUAs are also expected to give the emerging farmer a voice in water management through user participation (DWAF, 2002) and facilitate some knowledge sharing between farmers. The new water institutions are being created across the country.

However, the limited research on WUAs in the country has shown that commercial farmers are very reluctant to co-operate with emerging farmers in WUAs (Faysse, 2003). In fact, they have been found to be doing so only when the emerging farmers are either upstream and therefore affect their water supply, or are fully paid up members (Faysse, 2004). While the *National Water Act of 1998* defines WUAs as 'co-operative societies', it is illogical to think of such behaviour as 'co-operation'.

Emerging farmers are coming in as a minority in already established institutions (Faysse, 2003). Formation of WUAs relies on the framework that created the Irrigation Boards (IBs). IBs are institutions created by the 1956 Water Act to serve the needs of white farmers (DWAF, undated, a). They are therefore not necessarily a platform defined and instituted by the HDIs, of whom emerging farmers are part of. In this scenario, participation alone is very unlikely to make a meaningful difference. In fact, research has shown that in such multi-stakeholder platforms, the weak get weaker (Warner, 2006). The expectation that co-operation, skills transfer and participation will happen in multi-stakeholder WUAs seem to be a fallacy created by 'passive optimism' on the part of government, a belief that by simply putting people together it will make them work jointly for mutual benefit.

The need to question the feasibility of the multi-stakeholder WUA in the face of apparent disadvantages to emerging farmers motivates this research. It is expected to provide an early feedback on such a policy and hopefully inform further on policy development in the new water management era.

1.2 Problem statement

The new institutional arrangement where commercial and emerging farmers are put in one WUA is encouraged by government policy based on the hope that it will result in integration and co-operation between the two groups. Emerging farmers are expected to join in and improve their access to irrigation water through the shared waterworks that they would not be able to afford individually (DWAF, undated, b), to acquire some farming skills and knowledge from commercial farmers and to take part in decision making for the WUA (DWAF, undated, c). This set up is meant to be an improvement on Irrigation Boards, where only the interests of white commercial farmers were represented.

However, indications are that emerging farmers lack the necessary capacity to fully participate in decision making (Faysse, 2006), and therefore are unlikely to derive any tangible benefits from the process. In the new set up where both emerging farmers and established commercial farmers belong in one WUA, it cannot be taken for granted that co-operation and skills transfer will happen. Relations between the two have been strained in the past, so expecting overnight changes may be wishful thinking. There seems to be a lack of sufficient knowledge behind this policy formulation, other than the rather simple political reconciliation slogan of wanting to create a 'rainbow nation'.

1.3 Aim of the Study

The aim of the study is to understand the level of co-operation between emerging and commercial farmers in a Water User Associations. The effort is expected to inform policy and improve practice in the building of new water institutions as government strives to implement IWRM.

1.4 Objectives of the Study

The objective of the research is to:

- Identify the extend of co-operation between emerging and commercial farmers in WUAs.
- Describe the participation by emerging farmers in WUA stakeholder meetings.

- Ascertain whether there is skills transfer or not in WUAs.
- Explain the possible reasons for the findings and make recommendations.

1.5 Rationale

With the South African water legislation seen as one of the best in the world because of its pro-poor and gendered nature, the implementation of it thus far cannot be said to be smooth. The study offers early feedback on the performance of the new institutions of water management. Such feedback can improve practice and further inform on policy development. The new knowledge generated here is critical for investment reasons. The government is making significant investments through new policies and subsidies to the new institutions as most of them are still being formed. Moreover, a better understanding of the social relations between white commercial farmers and the black emerging farmers needs to be ascertained and continuously assessed before committing more resources.

1.6 Scope of the Study

The study was limited to two Water User Associations in the Breede Water Management Area in the Western Cape Province of South Africa. Interviews were done with emerging and commercial farmers and two government officials from the Department of Water Affairs and Forestry (DWAF). The study aims only to probe the welfare of emerging farmers in WUAs in terms of skills transfer, participation and infrastructure sharing. Any other issues outside these three mentioned here are outside the scope of this research. Logically, the research also focused only on emerging farmers who are in a WUA that also has commercial farmers.

1.7 Study Design

The study used a qualitative research method. Primary data was collected from the field by use of semi-structured interviews and observations. For secondary data, documents were reviewed and analysed, most of them being government documents guiding the establishing of new water institutions and interpreting the new legislation for implementers.

1.8 Definition of Key Concepts

Several term have been used in this research that may connote different meanings to different readers. Some working definitions are provided here for clarity

Emerging farmer: There is no formal, legal definition of what an emerging farmer is in South Africa. It seems the term is used freely and interchangeably to describe new entrant farmers who are mainly black, developing, resource poor farmers operating on a small scale. However, in this thesis, "emerging farmer" will be used to refer to developing, resource poor, new entrant and historically disadvantaged farmers. This does not include white farmers, as they do not belong to the historically disadvantaged category.

Commercial farmer: A commercial farmer is a large scale farmer who has previously benefited from apartheid and is a former Irrigation Board member. Please note that by 'apartheid beneficiary' and 'IB member', the automatic meaning is that this farmer is also white and not resource poor. Black businessmen who have invested in commercial farming, mainly from the Black Economic Empowerment (BEE) initiative, are not included here.

Participation: Participation in development circles is defined as a process that ensures sustainability because it avoids top down decision making and allows stakeholders to have a say in local issues (Dube and Swatuk, 2002). While bringing people together and asking them to contribute may be some form of participation, Manzungu, (2002) emphasizes that participation goes beyond mere inclusion and should involve decision making. In this study, there was no time to follow up on decision adopted in meetings. Participation in this study therefore, is only limited to mean the farmers' actual contribution in WUA meetings.

Skills transfer: A combination of skills are needed to make one a competent farmer. These begin with the operational skills to prepare the land and plant the crop, and monitoring it until harvest. It also means the managerial skills in planning, purchasing,

selling and human resources management. Since emerging farmers require all skills, skills transfer refers to all these skills that are needed in successful farming.

Infrastructure: the infrastructure referred to in this study is that which is needed to access irrigation water. These are the dams, the scheme pipe network and its accessories.

1.9 Limitations of Study

Language proved a formidable challenge. The area is an Afrikaans speaking one, and I do not speak Afrikaans. Although the respondents switched to English, their proficiency in a second language hindered accurate expression and limited our level of engagement.

The number of suitable case studies was also a big problem. WUA are still being formed, so most of them are not operational yet. The nearest suitable cases are the ones that were used. The Groenland case, though adequate, was not very ideal since it had only two emerging farmers.

1.10 Outline of thesis

The thesis is presented in five chapters. These are as follows:

The first chapter provides the background of Water User associations (WUAs) in the transforming era of water management. It identifies the problem areas and provides the objectives and rationale behind the study. In this chapter key concepts are defined and the scope of the study is described.

The second chapter deals with literature review. The review of literature follows the development of new water legislation in southern Africa, and the resulting new institutions. It interprets the creation of WUA by the South African Water Act (36) of 1998, its roles and responsibilities and benefits of such an institution. The chapter also illustrates some short comings on public participation and analyses the idea of skills transfer.

The third chapter explains the research design and methodology that was used in the study.

Chapter four gives the research findings, in two parts. First, it describes the story in Groenland WUA and Hex Valley WUA, and then relates the experience of each WUA to the concepts of skills transfer, participation and sharing of infrastructure. The second part discusses the findings and tries to find possible reasons for them.

Chapter five gives the conclusions arrived at with regards to benefits of emerging farmers in WUAs, whether they are realising any skills transfer, participation or sharing of infrastructure. It is the concluding chapter.

1.11 Conclusion

This chapter has provided the background to the study, highlighted the problem statement, and described the objectives and limitations of the study.

Chapter 2

Literature Review

2.1 Introduction

The research grounds in the theoretical framework of communicative rationality by Habermas (1981). The theory proposes that people find a rational basis for doing things in life and the assumption that consensual understanding sought between people can always be achieved (Wilson, 2001). Communicative rationality integrates science and the social learning processes, and is distinguishable by its focus on participating and learning through the reconciliation of different problems faced.

IWRM tries to bring together different water users to jointly manage their water resources (van der Zaag, 2005). The IWRM key objectives of sustainability, efficiency and equity bring together disciplines of law, sociology, environmental science, civil engineering, political science and rural and urban planning, among others, to the same table. Dialogue between the disciplines, and dialogue between members in user groups, is therefore a backbone upon which the approach of IWRM lies. And WUAs, as institutions created by IWRM in southern Africa, rely on dialogue to function. That is the whole idea behind the concept 'participation'.

In this section I review the literature on the origins of Water User Associations (WUAs) in the area of water resources management. The focus will move from the general, international experience to WUAs in South Africa. Discussions will follow the three issues of stakeholder participation; infrastructure sharing and skills transfer. The literature will also review the functions of a WUA in the South African context against the background of the provisions of new water management institutions under the *Water Act of 1998*.

2.1.1 The Need for Water Reform

Water resources are diminishing due to climate change, increasing population, and pollution, among other reasons (Zehnder *et al,* 2003; Gleick, 1998). Fears of a marked decrease in food production, health hazards from lack of sanitation, lack of hydro-power, and physical shortage of domestic water are some of the ills that water scarcity can bring. These fears triggered the search for new ways for sustainable management of water resources, and hence, a new paradigm called Integrated Water Resources Management (IWRM) was proposed.

The IWRM concept has been defined by GWP as 'a process which promotes the coordinated development and management of water, land and related resources in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital eco-systems' (GWP, 2000). Some authors, for example Biswas (2004), have questioned the practical use of IWRM as a concept because they see it as inadequate and too pluralistic. Jonker (2000), attempts a more concise definition of IWRM as 'managing people's activities in a manner that improves livelihoods without disrupting the water cycle'. However this debate is outside the scope of this thesis.

The crusade of water reforms began around the world, commencing in most southern African states after the transition to democratic rule. In 1991, Tanzania began revising its 1974 Water Utilisation Act (control and regulation), resulting in the National Water Policy of 2002 (Kabudi, 2005). New legislation was passed in 2006 which gives the state full custodianship of national water resources and creating new institutions, including WUAs. In Mozambique, the Water Law of 1991 sought to achieve just about the same objective. In South Africa and Zimbabwe, water reforms, which were more IWRM-based, began in the 90s, with both countries introducing new water legislation in 1998.

2.1.2. Water Reform in South Africa

Prior to 1994, a white minority dominated South Africa, constituting only 24% of total population, and yet owning 83% of total land, and controlling 96% of national water

resources through private and co-operative schemes (Perret, 2000). The management of water was on a riparian basis and apartheid legislation allowed for the creation of Irrigation Boards. Irrigation Boards were established by the 1956 Water Act to serve the exclusive interest of white commercial farmers while blacks where restricted to the homelands with limited access to irrigation water (DWAF, undated a).

The democratic government of South Africa introduced the *Water Act No.36* in 1998, which mainly sought to achieve sustainability and equity (RSA, 1998) through several ways. The state therefore, declared ownership of the national water resources as an indivisible national asset, making all riparian claims obsolete and integrating the management of water with land and other related resources (RSA, 1998). The new legislation allowed users to participate in decision making by decentralization water management to catchment and local levels (Jaspers, 2001)

The establishment of new water institutions, namely the Catchment Management Agency (CMA) and the Water User Association (WUA) created a platform for users to participate. A CMA manages water at a regional or catchment level, while a WUA is a much more localized arrangement. South Africa is still in the process of establishing the 19 CMAs, and only one (Incomati) is functional to date, having been established in 2004. Even though some WUAs are up and running, a lot more are still to be established (Faysse, 2004).

2.2 Water User Associations

A WUA, the world over, is formed with the intention of bringing governance of water resources to the local people (Rosen and Strickland, 1998). This is a remarkable departure from the previously centralised management system whereby the national office managed water resources and determined priorities. The WUA is instead, a bottom up approach in which the local needs drive the national policy. Although WUAs can be formed for any water use, observation shows that they are mainly formed for agricultural reasons, usually irrigation, particularly in India and Japan (Tanaka and Sato, 2005).

Two broad types of WUAs have been identified by Meinzen-Dick et al (1994). The first is what they call the Asian Model, which relies on direct participation of members, and these are socially based, multi-purpose smaller units. It is build upon social interaction of members who rely on the knowledge of each other for making decisions and monitoring in the association. These are more suitable in societies that are socially cohesive and have smaller landholdings and simpler technology. The second is the American Model, which are specialised organisations based on hydraulic boundaries and operate using formal rules. There are less face to face interactions as they are more specialised. They are usually focused on irrigation, not multiple activities. These models are appropriate for larger landholdings with complex technology.

WUA have varying origins. They can be traced back to the early 60s in Tajikistan (Molle *et al*, 2002). They are usually legally instituted bodies, which are both statutory and voluntary (A.A.H, 2004; RSA, 1998). WUAs are statutory because they are created by law, and therefore have a legal basis to exist, and voluntary because members join by choice. In other countries, notably Malawi, Turkey, The Philippines and India, WUAs have origins in irrigation management transfers (Yercan et al, 2003; Sokile et al, 2003; Maganga, 2003; Meinzen-Dick and Knox, 1999). The various governments were trying to wean off non-core business and reduce government expenditure by decentralising water management. In Zimbabwe, Tanzania and Zambia, the advent of IWRM, which came with emphasis on equity and sustainability, allowed for the formation of new water institutions. These carry different names like Sub-Catchment Councils (SCC) in Zimbabwe or Water Supply Company in Tanzania (Simet, 2003). These also come with slightly different mandates, although management and protection of water resources is the central goal in every case.

Roles and responsibilities of each water user organization vary with each situation. In South Africa it depends on an approved constitution. The Minister of Water Affairs and Forestry approves it after being satisfied by the proposal send by the members (RSA, 1998). In Indonesia, it is the government that defines the duties of a WUA (AAH, 2004). In Thailand, they are expected to promote farmers' understanding of water issues, help

them source inputs and equipment and introduce the concept of user participation in water resources management (Molle et al, 2002). In Tajikistan, WUAs are meant to operate and maintain waterworks, collect fees from users and organize meetings for stakeholders (AAH, 2004). In Malawi, WUAs were also mandated with conserving water, enhancing sustainability, empowering users and marketing of crops (Nkhoma and Mulwafu, 2004). Zimbabwe has a similar scenario, where the SCC have a responsibility to monitor the exercise of permits, water flows, pollution control and collect levies among other things (Tapela, 2002). A host of other examples can be found, but the mandate of WUAs can be summarised as follows.

They have a duty to monitor water use through exercising permits, to sustainably use water resources through efficient consumption and pollution control, empower all users, including the previously disadvantaged through user participation and operating and maintaining water works. They also have a mandate to construct, operate and maintain waterworks (Tapela, 2002; Faysse, 2003, Meinzen-Dick et al, 1994).

When a WUA has both HDIs among its members, the issue of trust becomes important to make it work (Swatuk, 2005; De Lange and Faysse, 2003). There has been a weakness in only focusing on the statutory requirements of WUAs, ignoring other factors that can make it successful, like social ties and customary law (Maganga, 2003). Research done so far has only been focusing on successful cases and ignoring failed ones, losing the opportunity to learn from them, (Meinzen-Dick et al, 2002). The authors argue that in India, social capital, notably religion, was instrumental in making WUA members stick together. Social cohesion and homogeneity among farmers has improved important in irrigation based WUAs (Meinzen-Dick et al, 1994).

The challenge faced by WUA, especially in an African context, will be to include historically disadvantaged individuals (HDIs), (Meinzen-Dick and Zwarteveen, 1998). These include women, and in the case of Zimbabwe and South Africa, the people who had been excluded during minority rule. Incorporating HDIs mean redistributing water entitlements, and bringing these new members into active participation in decision

making (De Lange and Faysse, 2003). The balance between economic efficiency and social equity becomes a big challenge, necessitating the question: do basin people really get benefits from these new water institutions (Levite and Sally, 2002)?

The benefits that a WUA brings have been well chronicled. One is the increased timely water supply that comes coupled with a reduced cost of irrigation (Kolavalli and Brewer, 1999). The authors also posit that there will be improved water control and technical and organizational support from external agencies. Meinzen-Dick et al (1994) add that through a WUA, there is democratisation in decision making and also the empowerment of users. However, participation is based on expected outcomes (Kolavalli and Brewer, 1999). People are willing to expend efforts where they believe they will gain profits. A critical form of participation in any user group is decision making (Meinzen-Dick and Knox, 2001). But for this to happen, other factors come into play. Factors such as level of education of the participants, technical skills to manage the resource, and organisational skills to lead the organisation are all important (Meinzen-Dick and Knox, 1999).

WUA do not have a very encouraging record so far. Failures have been evident, and are attributable to several different reasons. In Thailand, they disbanded them and moved to smaller water user groups (WUG) because WUAs were too big and lacked social cohesion (Molle et al, 2002). They have also been plagued by capacity issues. To be viable, a WUA needs financial capacity, skills to manage the entity and linkages with relevant external organizations (Meinzen-Dick and Knox, 1999). Financial capacity has been the most demanding as WUA have to self finance through levying members. It is difficult to set optimum prices for the water when the poor are concerned and with equity in mind.

The size of a WUA has also been an issue. While there is no blue print approach to this problem, an optimum size depends on the balance between needs and costs. A bigger WUA, with smaller sub units can benefit from economies of scale if it operates as a federation (Meinzen-Dick et al, 1994). This however, may bring another complication. WUAs work better when there is social cohesion as mentioned earlier. A bigger group

may lack this. Also, WUAs work if they are formed strictly voluntarily by members, otherwise they will only be accepted as a necessary evils, with no team spirit (Rosen and Strickland, 1998).

The decentralising of water management itself has been criticized by some scholars for only managing to reduce government expenditure without providing benefits to members (Yercan et al, 2003). It is not easy to build a WUA and realise intended benefits soon after (Dinar and Mody, 2004). This may be partly because water reforms benefit the already established users, who have enough capacity to take advantage of the new situation (Nkhoma and Mulwafu, 2004). Participation through representation may also be problematic. If you have many people from the same side, for example commercial farmers, they can sway debate in their direction (Sokile et al, 2003). These scholars say that WUAs do not meet expectations of the poor because use of water rights is a weak strategy to address water needs. These rights rarely get reviewed.

Meinzen-dick et al (2002) say that user groups still operate in an environment that is created by government, so they lack institutional freedom. This hinders their effective operation as users don't make their own rules. Many therefore, have remained of limited effectiveness. There are instances where WUAs have worked, but this has been largely due to other factors. For example, the introduction of customary rules into the management of participatory irrigation management schemes in Turkey and Mexico (Tanaka and Sato, 2005). In addition, the users in Kazakhstan formed their association strictly voluntarily and convenient geographical location of farms eased water allocation (Rosen and Strickland, 1998). The South African experience, however, has not registered much success (Faysse, 2004)

2.2.1 The WUA in South Africa

In South Africa, WUAs were created by the Water Act 36 of 1998. The Act defines a WUA as a "co-operative association of individual water users who wish to undertake water related activities for their mutual benefit" (*section* 90). The WUA is a statutory body established by government notice. Water related activities include farming,

domestic use, fishing and recreation. The primary purpose of a WUA is therefore, not water management per se unless when specifically delegated or assigned such a responsibility. Water management is a function of the CMA.

Two things discern here, one is that a WUA is a statutory body, and two, it is a 'co-operative' association. The Act is not clear on whether this is a voluntary organization or not. The DWAF policy is to have all water users to join a WUA, whether they are paying or not (Faysse, 2003). In other words, it cannot be called a voluntary organization in South Africa. There has not been much research done on WUAs in South Africa, except for a few papers by Faysse, so much of the review is coming from research reports and policy papers.

Former Irrigation Boards (IBs) and Subterranean Water Control Boards formed by the 1956 Water Act are supposed to transform into WUAs, though they may continue to exist until declared WUAs or when incorporated into a WUA by the minister (*section 90*). IBs were allowed for by the Union Irrigation Act of 1922, as co-operative bodies through which commercial farmers would manage their own water resources (Forde, 1925). They were later given full legal status by the 1956 Irrigation Act, where they were tailor made to serve exclusively the needs of white commercial farmers. The government of South Africa set 2006 as the deadline for formation of WUAs. However, most WUA establishment projects hit snags and continue to be "works in progress." Only two WUA are operational in the Berg WMA for example. Reasons for the lack of progress vary from compliance difficulties to ever-changing ministers and their priorities, and the legal status of IBs. Some officials argue that IB members will never realise the urgent need for forming a WUA since they can legally function while awaiting approval to transform into WUAs.

Roles and responsibilities of WUAs are not very different from those found in other countries. In South Africa though, the process is more democratic in that each WUA forms its own constitution where it spells out what it wants to do. The Act, however, provides a model for this, which it expects WUAs to follow. Among the uses listed there

are; protecting water resources and preventing unlawful use, construct, operate and maintain waterworks, monitor water use and to keep records of stock levels (Schedule 5, RSA, 1998).

The implementation of such duties is not without its challenges. As noted by Faysse (2006), WUAs in South Africa are characterised by high social inequities and disorganised groups that lack financial and technical capacity to make the WUA viable. The idea of putting all water users in one group, something that is unique to Zimbabwe and South Africa (Faysse, 2004), is to create multi-stakeholder platforms where emerging farmers, commercial farmers, local government and industry among others belong to one WUA.

These WUAs are thought to be good for emerging farmers because they benefit from capacity building by the commercial farmers (Faysse, 2003). Commercial farmers are expected to share knowledge, and sometimes assist with skills transfer to emerging farmers (Faysse, 2004; De Lange and Faysse, 2005). However, this capacity building has not been happening and the emerging farmers therefore have not been benefiting from these WUAs (Faysse, 2006). Commercial farmers are usually bigger in numbers and have more water rights, so they hold sway in these WUA decision making processes (Merry and De Lange, 2003). They are also only willing to include HDIs if they are upstream and therefore impact on their water, or are fully paying members (Faysse, 2003).

Inasmuch as the water reform has advocated for equity and sustainability, the HDIs in South Africa are clearly still to benefit from the new legislation. WUA in South Africa brings two notable stakeholders together: commercial and emerging farmers. Commercial farmers are usually descendants of white settlers who benefited from minority rule and apartheid. They have successfully farmed for generations, benefiting from huge government subsidies and grants (Forde, 1925). In the Western Cape Province, commercial farmers are the backbone of agriculture. They farm deciduous fruits, providing considerable export commodities and employing 9% of the province's labour (Vink, 2003). They have been exposed to farming from a very early age and usually have

tertiary education (Zimmerman, 2000). Emerging farmers are in a different class and need a longer explanation.

2.2.1.1. Emerging Farmers

There is no formal, legal definition of an emerging farmer in South Africa, but the term is used freely and interchangeably to describe new entry farmers who are mainly black farmers, developing farmers, poor farmers, and small scale farmers all in one. The management of water resources needs to consider the inequities from the South African history, in which the white apartheid government allocated the best agricultural land to whites. The new democratic government is redistributing land, and the black, who did not have the land before, are logically the beneficiaries (Hall, 2004).

The definition of "emerging farmers" becomes blurred because every person interested in farming, from former farm workers, rural homeland dwellers to black businessmen are getting land. The definition of "emerging farmers' then includes any black person embarking on agriculture. The Department of Land Affairs and Agri-Africa defined an 'emerging farmer' as "new entrant, previously disadvantaged individuals" in farming (DLA Agri-Africa workshop, February 2007). The definition, thus emphasises on the term 'marginalised', which is generally used to describe a typical 'rural dweller in the former homelands' who is primarily the targeted beneficiary of land reforms (DLA, 2007)

The DLA (2007) also identified the 'developing farmers' or the 'resource poor farmers' as emerging farmers who are 'going places', meaning relatively successful new farmers, but based on resources or income. DWAF (2004) defines the 'Resource poor farmers' as "citizens of South Africa who are members of the historically disadvantaged population groups". In other attempts, Hall (2004) defines emerging farmers as black entrants into commercial farming. Faysse (2004) and DWAF (2004) define emerging farmers only in the context of water resources, as 'small scale users who have a water licence or are supposed to attain one soon'.

There is no designated farm size for defining emerging farmers although most of their farms are relatively small. A look around the farms though, shows that they are about five hectares on average, while commercial farmers are between 30hectares and 120hectares. However, in some countries, for example, in Zimbabwe, the emerging indigenous commercial farmers, known as the A2 farmers, are of a different status to the resettled subsistent farmers, known as the A1 farmers. In South Africa, the status of farmers is easier to define by net income, which averages R49 944 per year (DLA, 2007) for emerging farmers. In putting the HDI into agriculture, government is seen by some people as trying to create a 'farming class' amongst the black South African population 'from scratch' by giving land to people who have "no theoretical or practical experience in farming" (Bradstock, 2004)

Whatever the contested merits of land reform are, they are beyond the scope of this research. In this thesis, "emerging farmers" refers to developing, resource poor and historically disadvantaged farmers. Being historically disadvantaged, it means they are black, with no training or farming experience and lack financial resources.

2.3 Participation

Generally, there has been active promotion of stakeholder participation in development issues, in particular resource management, in the last few decades. Such participation is believed to empower the 'have-nots' (Cleaver, 1999) by allowing resource users to contribute in decisions involving the use of local resources and in prioritising of their local needs. Farrington (1997) disagrees and posits that participation is a devalued term deployed for donor exhortation because the proponents of the concept are loud on the rhetoric, and sometimes the form, but never the substance. The argument that participation is never completely practiced has had many takers, as some parts in this section will show.

In the water sector, participation has been a central part of water reform as it is said to promote sustainable management of water resources (Jaspers, 2001; GWP, 2000). Thus stakeholder participation is said to encourage sustainability because it decentralises

resource management to the local level, and thus has formed a large part of development policy in governments the world over (Cleaver, 1999; Warner, 2006).

Meinzen-Dick *et al*, (2002), describe the decentralisation process as superficial. They suggest that it is probably that way because the whole process happens in a framework that is already set and budgeted for by government, leaving no room for institutional freedom for the people participating. In the end, participation ultimately amounts to a process of only seeking clarification and understanding (Sithole, 2000). In Brazil, the decentralisation of water management has benefited only the large water users to the exclusion of smaller, grassroots users just as in the southern African experience (Brannstrom, 2004).

Benefits of participation have, consequently, remained unquantified and very elusive for a number of reasons. For instance, everybody applauds the idea of participation, which however gives rise to conflicts if interpreted by the 'have-nots' as a redistribution of power (Arnstein, 1971). Some scholars, for example Cleaver, (1999); Warner, (2006), and Tapela, (2002) argue that since the process brings everyone together and inevitably creates a multi-stakeholder platform, the less empowered are at a big disadvantage.

2.3.1 Participation in the WUA

The idea of participation in WUAs began to take shape in the Asian region, notably Phillipines, in 1976 (Meinzen – Dick, 1997). Although it has spread to other regions in the world, its success has been very elusive. It is important to note that several enabling mechanisms have to be in place if participation has to take effect. These include a sound legal framework, incentives for the participants, knowledge of the process, significant understanding of water issues and a veritable amount of communication skills (Meinzen Dick, 1997; Manzungu, 2002; Kujinga and Jonker, 2006; Faysse, 2003).

Unfortunately, not all members of the association possess such skills, and therefore participation has been a big challenge to the associations. New entrant users are usually 'uncertain, uninformed and misguided' (Gonese, 2002). Their participation is therefore

marred by a certain degree of economic and political marginalisation (Farrington, 1997). These users are unlikely to lead any participation process from such a background.

Research has also shown that participation in WUAs has largely been very ineffective and not beneficial to the previously disadvantaged (Swatuk, 2005). Scholars argue that although the main objective of water reform is to empower the formerly disadvantaged people through decentralisation, no benefits are evident yet (Manzungu, 2002; Cleaver, 1999; Sithole, 2000).

Moreover, the government, as a stakeholder, is not the neutral facilitator it purports to be, but rather an active stakeholder interested in political sustainability (Tapela, 2002). The expedient need to serve a political constituency will inadvertently take precedence over the need for sustainability

Another unfortunate experience has been the misguided impression that bringing people together around the discussion table will amount to participation and empowerment (Warner, 2006). The author argues that political realities on the ground are hardly overcome by talking alone, especially in South Africa and Zimbabwe, where historical inequalities exist. In Zimbabwe, some farmers did not even know their representatives, and where not aware of the new water institutions, because the process had been hurried although it officially included 'everybody' (Kujinga and Jonker, 2006). Such limited knowledge limits participation.

In some cases, eligible stakeholders would want to have access to the water before participating because they see no point in talking about something they do not have (Sithole, 2000). Inclusion becomes a big challenge because those who have no water are not interested in attending meetings or contributing ideas despite still being stakeholders. Thus, the question of inclusion has become a bigger challenge because decentralisation has not really achieved equity in the first place (Toner and Cleaver, 2006)

International experience also shows that influential members dominate in WUAs, and even abuse water rights (Sithole, 2000; Faysse, 2004). In Zimbabwe, large volume water users, including commercial farmers, have dominated proceedings because they have a more effective means of communication and have accumulated experience in water management issues (Gonese, 2002). Even though the social bonding of stakeholders can be enhanced by including different users in one group, the strategy has proved to disempower the weaker groups (Warner, 2006). In Asia, the most recognizable benefit on the new water institutions has been to reduce government expenditure, and not to improve stakeholder participation (Meinzen–Dick, 1997). The failure has probably resulted from too much focus on the form rather than the function of the new water institutions (Toner and Cleaver, 2006). It is people and relationships that shape institutions, not laws and regulations.

Attitudes are also a mitigating factor to progress because the people strongly rely on statutory formal laws and steadfastly ignore the local and traditional rules, which have proven to work better (Maganga, 2003; van der Zaag, 2005; Sokile and van Koppen, 2004). Building a user group is not just about technical application of rules and laws, but rather a political process of balancing different demands from different stakeholders (Merry and De Lange, 2003). This is a factor that has largely been unnoticed by policy makers.

2.3.2 The South African Experience.

The role of the WUA in South Africa has never been conceptualized nor fully defined from the beginning (Faysse, 2004), hence, the emerging farmers find themselves at a loss in some of the new organisations despite their superior numbers (Manzungu, 2002). Also, emerging farmers failed to participate because of lack of knowledge and distrust between them and white commercial farmers (De Lange and Faysse, 2005). A bitter history of racial inequality has left an apparent resentful attitude among citizens.

In addition, some of the interests of black users do not coincide with the predetermined functions of a WUA (Faysse, 2006). The new farmers need access to legal (water right),

technical (irrigation equipment), and financial (paying the cost) access, which require capacity that they do not readily possess.

Commercial farmers are happy to include emerging farmers who are paying members in the WUA, or upstream and who could therefore affect their water quantity and quality (Faysse, 2004). Thus, there is a reluctance to include downstream and non-paying members, effectively denying them an opportunity to participate. Government's new policy recognizes all users, paying or non-paying, as legitimate and eligible to belong to a WUA, which is not enough (Faysse, 2003). It does not guarantee participation.

Manzungu (personal communication), argues against the inclusion of emerging farmers into WUAs and instead proposes to better have emerging farmers forming their own smaller units within a WUA, which becomes an umbrella body that advocate for all users. The same challenges still exist because the emerging farmer will still have to send representatives to the federated WUA. According to Vanclay, (2004) representation is not participation because representatives are seldom in the majority, and hence they can be easily marginalised.

2.4 Skills Transfer

The Minister of Water Affairs and Forestry mentioned the wish for an amalgamation between emerging and commercial farmers into one association that would result in "transfer of skills from the experienced to the less experienced" (DWAF, 2005a). The burning question then is: "I this possible? If it is, how"? It is not clear if the assumption here is that by mere inclusion, skills transfer will take place, or if there will be a designated programme to oversee this process. The minister does not give details.

Agricultural skills transfer is a rather complex process. Farming is a seriously competitive business that demands high managerial capacity. Skills in marketing, farming techniques, business management, maintenance, and knowledge of legal issues, are all very critical to successful farming. Higher formal education is useful in attaining the generic skills needed here (Bridges, 2003). This is because the factors that contribute to

skills transfer have a lot to do with individual characteristics and the work environment than with anything else (Chiabaru and Marinova, 2005). Considering that skills transfer is inseparable from the context (Bridges, 2003) the South African case is replete with many challenges.

The kind of education and skills needed to practice viable modern farming is not readily available among black emerging farmers in South Africa (Zimmerman, 2000). The apartheid legacy left a huge gap between black and white people that extend into farming. It is worth noting that human capital in education, farming skills, and managerial experience usually makes the difference between an average and a good farmer (Zimmerman, 2000).

There is also lack of finance, agricultural education and experience, and adequate infrastructure (Nel and Davies, 1999) amongst emerging farmers. Emerging farmers do not have experience in commercial agriculture, and neither do they have the formal education. This gap was traditionally covered by extension services. Agriculture extension services were used, the world over, to cater for skills needs of farmers.

2.4.1 Extension Services

In developing countries, the role of skills transfer has traditionally been given to agriculture extension services (Anderson and Feder, 2004). Extension agents were the human capital that provided information and technical know-how to increase agricultural output. They worked with small scale and peasant farmers to assist with agricultural skills through training and visiting (TV), and demonstrations. Their mandate did not include large scale commercial farmers, as these were assumed to have enough resources to source their farming needs elsewhere. The extension agents' involvement was premised on the misconception that resource poor farmers can only get skills from government (Farrington, 1995). This has proved inadequate, as most extension services failed to meet expectations.

It should be appreciated that agriculture is not a science, but it is 'farming', and farming is about people (Vanclay, 2004). Agriculture is therefore a socio-cultural vocation governed by social processes, not a technical activity that it was presumed to be. Vanclay (2004) says it is a mistake to believe that it is only science that can create knowledge that is transferable, because farmers can construct their own knowledge from their understanding of the local history and climatic conditions. So the traditional processes failed to recognize the underlying social factors, to the detriment of the process.

Extension services failed because they were unidirectional in approach (Farrington, 1995; Vanclay, 2004; Marsh and Pannell, 2000). This did not give any room for any useful feedback, and failures were not correctly diagnosed. Research has shown that farmers tend to shun new skills if they are expensive to acquire or if they require too much learning (Vanclay, 2004). Besides, the extension agents themselves were biased towards the bigger farmers who exhibited better performance and could afford to 'thank' them in kind (Anderson and Feder, 2004). In all this confusion, the intended lessons did not get to all the intended beneficiaries.

There was also a weak political commitment because these services were usually donor driven (Purcell and Anderson, 2000). This saw the extension agents being assigned other duties since they were the only available government officials at village level. In the end it limited their effectiveness. Besides, the programme ignored other possible avenues for farmer education. The education of farmers did not include better placed institutions like higher education centres and colleges, yet these are more equipped with new research and resources that they could provide at little or no additional cost to farmers (Marsh and Pannell, 2000)

Lastly, there was too much state support (Picciotto and Anderson, 1997). Extension relied on heavy state support, something that states cannot afford anymore in light of decreasing donor financing in agriculture. There has also been the moral question of why state resources should be used to benefit only a few citizens in only one sector of the economy. We can also pick a few lessons from the above mentioned failures. The first is that

agriculture has a social dimension, second newly acquired skills rarely get practiced, third, too much government interference harms the process and fourth, there are other sources of skills that emerging farmers can utilise.

2.4.2 Knowledge Sharing

A critical aspect of skills transfer is knowledge sharing. By transferring skills, one also shares knowledge. In South Africa, once the emerging and commercial farmers form one WUA, government expects that they will share knowledge (DWAF, 2005a), probably through interaction and dialogue. Dialogue is an effective way of sharing one's knowledge (Nonaka and Toyama, 2003) while interaction is believed to be a rational decision when people live together, (Habermas, 1981).

However, it is worth noting that knowledge itself is an asset that is not easy to share. There is a mistaken impression that information is equal to knowledge, but knowledge is more about context, rather than simple facts. It is the ability to interpret and organize information into a usable body (Teece, 2000). While people may be willing to share, some barriers may exist to the sharing of knowledge. These include the lack of time, unawareness of the needs of others, the capacity of the recipient to learn, and the deliberate withholding of knowledge as a power tool (Skyrme, 2002).

Some kind of knowledge transfer is still expected to take place in the WUA. This, presumably, may happen through inadvertent transfer, imitative activity, or deliberate transfer if the commercial and emerging farmers are placed in one WUA (Teece, 2000). Inadvertent transfer involves the co-operative alliance that lead to knowledge spilling over from the commercial to emerging farmers. Imitative activity is a different method that requires the emerging farmers to imitate what commercial farmers do and hope to succeed that way. The deliberate transfer method involves under-learning as part of planned capacity building.

As mentioned earlier, capacity and social context are critical for knowledge sharing. When farmers come from a history of minority rule, the social context is that of distrust,

patronage, and scorn, making it very unlikely for a knowledge free flow to occur (De Lange and Faysse, 2005; Dube and Swatuk, 2002). Besides, the lack of a farming legacy among black emerging farmers puts their capacity into question.

2.4.3 The South African Experience

In South Africa there were two different extension services during apartheid. One comprising elite, qualified university graduates was for white commercial farmers and the other, comprising less qualified officers, was for the rural black in the homelands (Department of Agriculture, undated). In the 1970s, commercial farmers leaned more towards the specialized advice found in the private sector, leaving the extension officers to concentrate on administrative issues only, like credit facilities, conservation and subsidies.

The need to bridge the gap being left by donor support has seen governments trying to tap into the social infrastructure (social network of farmers) to provide knowledge. The concept of farmer led intervention is gaining momentum (Picciotto and Anderson, 1997). This has given a new dimension to the replacement of extension agents. In South Africa the Ministry and Land Affairs and Agriculture, through the land reform programme, recommend that a beneficiary of land reform should have a mentor (DWAF - personal communication). This mentor will be an experienced commercial farmer who will assist with farming skills and knowledge sharing with the emerging farmer. It is an innovative approach where the 'para-professional' extensionists provide a skills transfer service (Farrington, 1995). Some assume it is always voluntary, while others link it with input supply where emerging farmers then pay for the whole package, linking the advice and input supply (Farrington, 1995). In South Africa, no policy document explicitly specifies this. DWAF only requires a WUA to have a business plan, from which it should spell out how it intends to assist emerging farmers. Although skills transfer is apparently one of the things where assistance is anticipated, it is not specified.

The next logical question then will be: Is it working? Emerging and commercial farmers are now in the same WUAs in South Africa. Some emerging farmers are even in equity

schemes where they farm together with commercial farmers. According to Moseley, (2006), the policies in the share equity schemes in the Western Cape have been driven by the expectations that emerging farmers would learn from commercial farmers. Such expectations, however, do not apparently show the appreciation of the fact that tacit knowledge is difficult to transfer (Grossman and Poston, 2003). The wealth of experience and education acquired from decades of farming cannot be easily passed on.

Research has also shown that for one to be a successful farmer, they are likely to have had parents who were farmers (Zimmerman, 2000). Blacks, who constitute the entire group of emerging farmers, do not have personal experience in commercial farming because they have tilled only 14% of the country's total agricultural land for subsistence, while constituting 76% of the population, (Perret, 2002). From this background, their exposure to farming has arguably been limited to being labourers.

The argument, however, does not assume that blacks do not necessarily possess any inkling of farming knowledge, but their success may have to depend on some other competencies other than the wealth of experience and knowledge their counterparts naturally inherited. The black farmers have worked as farm labourers for long periods and acquired some high technical and specialised skills. The only weakness is that the skills are very narrow, as they have not been exposed to the wider farming operations (Moseley, 2006).

Emerging farmers in South Africa also have other bigger challenges. They do not have the state assistance and market share that commercial farmers had during minority rule, and trying to penetrate the established markets is difficult (Nel and Davies, 1999). Besides, their low level of education and lack of finance make this task insurmountable (Kamara et al, 2002). Furthermore, land reform failed to separate genuine people interested in farming from opportunists (Kamara et al, 2002) such that most of the emerging farmers on the land cannot all be called full time farmers (Nel and Davies, 1999).

It is also important to note that what motivates farmers to learn new things is the perceived outcome they expect to get from the process. According to Santos and Stewart (2003), two things usually happen. One is that the trainers may be out of touch with the kind of world that the trainees exist in, such that their training methods may not work. Or second, trainees rarely apply the new knowledge they learn. There is a tendency to revert back to the old ways of doing things. It is difficult to imagine emerging farmers acquiring new skills and putting them to use given such a background. Moreover, their immediate priorities may not coincide with the overall goals of the mentors, thereby altering the perceived outcomes.

There are no documented examples of skills transfer successfully happening in any WUA yet in South Africa, maybe because the education gap left by apartheid will not easily be filled-up anytime soon. The prospect of finding a first one will be the more exciting.

2.5 Infrastructure

The Department of Water Affairs writes that emerging farmers will benefit from their inclusion in WUAs because the organisation gives them the opportunity to jointly build or operate irrigation infrastructure, something they are not able to do on their own, (DWAF, undated, b). In the Minister's speech, (DWAF, 2005a), this kind of co-operation is encouraged. It is assumed here that this sharing of infrastructure will happen under some kind of co-operation.

The Oxford English Dictionary (1988) defines co-operation as 'working or acting together for a common purpose'. The big question here then will be: will emerging and commercial farmers co-operate in this regard?

Paldam (2000) describes three types of co-operation: (1) when group members voluntarily come together out of common reason, (2) when group members come together because of internal pressure from within the group and (3) when group members come together because a third party enforces co-operation. However, even though the Act defines a WUA as a 'co-operative association', the co-operation may not be voluntary for

some of the stakeholders and does not necessarily occur automatically even if the authorities bring people together through some empowerment or corrective schemes.

Water works is one of the principal functions of WUAs, but they have no history of emerging from co-operation. Irrigation infrastructure has traditionally been built by public funds (van Koppen, 1998; Beare *et al*, 2006; Huppert *et al*, 2003). In developing countries alone, there is US$25 billion annually going into investment for irrigation infrastructure, accounting for 15% of government expenditure (Briscoe, 1999). This has been the trend for several logical reasons.

Irrigation stabilises harvest and realizes more efficient use of fertilizer through increased output (van Koppen, 1998). Governments invest in it to increase exports, and sometimes, to provide reliable livelihoods to the rural population (Beare et al, 1998). It was believed to end poverty and bring development (Hussain and Hanjira, 2004).

It is the boom in water resources development of the 1950s that saw a lot of construction in irrigated agriculture – the so called construction era (Svendsen and Meinzen-Dick, 1997). However, because of the public funding nature of these schemes, they were never built on a cost recovery basis (Beare *et al*, 2006). They also never specifically targeted the poor (van Koppen, 1998). With the coming of the late 70s and early 80s, there was a shift to effective management of irrigation, because they were generally inefficient and poorly managed (Svendsen and Meinzen-Dick, 1997; Huppert *et al*, 2003).

This led to the formation on new institutions, like the On-Farm Water Management in Pakistan and the Command Area Development in India specifically to train farmers to conserve water (Svendsen and Meinzen-ick, 1997). Farmers had now to take over the operation and maintenance of irrigation schemes. In South Africa, this came earlier. Government had initiated the development of irrigation schemes as early as 1906 through the Cape Irrigation Act and the 1908 Transvaal Act (Forde, 1925). By 1922, it had allowed farmers to start forming co-operative bodies, called Irrigation Boards, through

the Union Irrigation Act of 1922 (Forde, 1925). This saw the beginning of massive storage works, pioneered in the Breede and Fish Valley by as early as 1925.

While putting irrigation management in the hands of farmers improved efficiency in water use, it brought different challenges. One needs three things to make irrigation management successful; and these are water rights, infrastructure to deliver the water and operational responsibilities, (Perry, 1995). The high cost of mechanization is one thing, but when emerging farmers are brought into WUAs, they also bring with them little knowledge on irrigation (Kamara et al, 2002). Now for them to be part of WUAs, they have to co-invest in infrastructure to obtain water rights (van Koppen, 1998). New knowledge is also now advocating for an asset management approach to irrigation infrastructure because it gives the system a financial and technical base (Moorehouse, 1999). The poor do not have resources to join the user organisations at this level.

There is no documented precedence of infrastructure sharing between emerging and commercial farmers who have a history similar to that of South Africa. States usually enforce co-operation in an effort to build social capital, but trust is really the basis of the actual co-operation (Paldam, 2000). The trust amongst members, and between the association and government, is what binds an association. The painful history of apartheid makes it difficult for the people of colour to trust white commercial farmers (Swatuk, 2005), making the likelihood of co-operation between the groups a big question.

2.6. Conclusion

The theory of communicative rationality was used as a theoretical framework for the study. Emerging farmers are expected to have a rational basis for interacting with commercial farmers in a WUA. Emerging farmers have been defined as new entrant, black, resource poor and small scale farmers previously disadvantaged by apartheid. They have limited formal education and no experience in commercial farming, although they do possess some technical skills as they have worked as farm labourers before.

There is no documented evidence of co-operation between emerging and commercial farmers. Participation usually sees influential members dominate. Although everyone may be represented in a user group, representation itself is not participation as representatives rarely lead discussions. What empowers one to participate is their knowledge of the subject and trust of fellow members. A good level of formal education also helps.

Skills transfer has traditionally been the role of Agricultural Extension Services the world over. However, these institutions have failed for several reasons. In South Africa, commercial farmers relied more on private organisations than extension workers. They have now been roped in to assist with mentoring emerging farmers as a government policy. Emerging farmers do not have the massive state subsidies that their counterparts had, and have to go an extra mile to achieve results. Their level of education has also hindered their capacity to adapt to new knowledge.

Irrigation infrastructure has always been financed by public funds, and has no history of coming from co-operative funds. Infrastructure belongs to IBs in South Africa and emerging farmers have to co-invest if they want to gain access to water rights.

Chapter 3

Methodology

3.1 Introduction

This chapter will give an overview of the methodology used to undertake this study. A similar study was done by Faysse (2003 and 2004) in the Northern parts of the country. Faysse was focusing on inclusion of all previously disadvantaged individuals in the Water User Associations (WUAs). These include subsistent farmers and domestic users, people who are not classified as emerging farmers in this study. He used a case study methodology, focusing on eight cases. For this study however, the focus is on inclusion of emerging farmers and the benefits of their inclusion in the WUAs.

The objective of the study is to identify the extend of co-operation between emerging and commercial farmers in WUAs. The project seeks to describe the participation by emerging farmers in WUA meetings and ascertain whether any skills transfer is happening between the two.

3.2 Hypothesis

The hypothesis that guided this research was that WUAs do not benefit emerging farmers because they do not give them a platform to voice their concerns. There is no skills transfer happening or infrastructure sharing happening in WUAs. WUAs are just a creation of passive optimism on the part of government, where it is hoped that putting stakeholders together will achieve co-operation.

3.3 Research Questions

The study aims to answer the following questions:

1. Are commercial and emerging farmers sharing or jointly building waterworks?
2. Do emerging farmers participate in WUAs?
3. Is there any skills transfer happening in WUAs?

3.4 Research Design

The study will use the case study methodology. A case study investigates contemporary opinion within a real life context (Yin, 1981). Because it relies on several sources for evidence, it is better suited to critique the level of co-operation and participation among farmers in a WUA. Case studies can also be used to describe a phenomenon or test a theory (Darke et al, 1998), making them a comprehensive method for a qualitative study. Case studies also allow for an in-depth analysis in an area. It satisfies the three tenets of a qualitative method, and these are describing, understanding and explaining (Tellis, 1997).

3.5 Study Area

The study area was selected based on the following criteria.

1. WUA should be established and already operating. The length of operation was not considered.
2. The WUA should have a considerable number of emerging farmers and commercial farmers to allow for a substantive comparison.
3. It should be in one of the historically predominantly white commercial farming areas.

The study assumed that since this Western Cape Province was a predominantly white farming area before democratic rule in 1994, it is one of the areas where water reform would be most visible. In the current Land Reform Programmes, emerging farmers would then inevitably find themselves as neighbours to commercial farmers.

The study sites are expected to provide clear examples of WUAs that co-opt both emerging and commercial farmers

The two WUA examined are found in the Breede Water Management Area (WMA), in the Western Cape Province of South Africa. These are the Hex Valley WUA and the Groenland WUA. The Catchment Management Authority (CMA) itself is not yet operational, but it has the highest number of Irrigation Boards (IBs) transformed into WUAs to date. It is a winter rainfall area with cold winters (May to August) and hot dry summers (November to March). Temperatures average 20degrees in summer and 12.5

degrees in winter. Coastlines are mainly rocky and steep, while fertile valleys of alluvial, loamy to clay soils are found between the sandstone folded mountains (DWAF, 2005b). This is where one finds the farming areas, where the WUA are situated.

Irrigated commercial agriculture is the dominant activity. Deciduous fruits, wine and table grapes are grown mainly for export. Irrigation consumes 68% of the available water resources, where 74% of the water is surface and 1% groundwater (DWAF, 2005b)

3.6 Data Collection

Both primary and secondary sources of data were used in this study.

Primary sources included formal, semi-structured interviews and informal discussions that were generally opportunistic and used to clarify misunderstood issues. Interviews allow for probing and are flexible, allowing the respondents to express their own understanding of the issue at hand. Direct observation at WUA meetings also took place in the study area.

3.6.1 Interviews

Semi structured interviews were done with key informants. These were the emerging farmers, commercial farmers and two government employees from the Department of Water Affairs and Forestry who work with WUAs. Three commercial farmers were interviewed from each of the two WUAs. Only two emerging farmer projects exist in Groenland and the managers of these projects were interviewed. In Hex Valley however, there is a bigger number of emerging farmers so a total of five emerging farmers were interviewed. To validate and clarify some terms, a member of a regional executive of an organisation that represents emerging farmers was also interviewed. Informal discussions were held with officials from the Department of Water Affairs and Forestry (DWAF) national office.

3.6.2 Observations

In the Hex Valley, two working days were spent with the Chief Executive Officer of the WUA, and two informal meetings with emerging farmers in Hex Valley, were attended observing the operations of the WUA and asking relevant questions. In Groenland, I also attended the WUA meeting and then had an informal discussion with a group of commercial farmers afterwards. I also spent the greater part of the study period following the participation of emerging farmers in the formation stages of the Berg WMA, which neighbours the Breede. Interviews were all done on site on the farms, giving me an opportunity to observe what was going on.

Government publications were used as the main secondary source.

3.6.3 Documents

A host of government documents were used to understand the framework under which the WUAs work. Several guidelines from the DWAF that were written to guide formation of WUAs were consulted. The new water legislation documents – National Water Resources Strategy, Water Act 36 of 1998 and Water Institutions Overview were all extensively consulted. The proposals to establish WUAs and the approved constitutions of the WUA were used and were very informative in providing some background information on composition and legal status of association members.

3.7 Limitations of the Study

The study was done in a limited time frame because of logistical problems. The study areas were not easily accessible. Both are tucked away in valleys, far and outside areas of reliable public transport, which I used. However, the time spent was long enough to discern major issues concerning the study.

Another problem was with language. Although generally all the respondents could converse in English, their knowledge of the language is not wide and therefore their vocabulary was limited. While that may have been enough for the study, a lot more issues

may have been revealed had I been fluent in Afrikaans, the first language of all the respondents.

3.8 Ethical Considerations

Ethical considerations were adhered to throughout the study. Permission was sought from respondents to voluntarily accept to participate and be recorded on tape. Those who were not comfortable with the tape recorder were exempted from it. None of the respondents is mentioned by name in the final copy, to uphold their anonymity that was promised.

Chapter 4

Research Findings

4.1 Introduction

The study is located in an institutional transformation context where water resources management is being decentralised to the last possible user. It is explored through a case study in the Breede Water Management Area (WMA), in the Western Cape Province of South Africa. The Water User Associations (WUAs) studied were Groenland WUA and Hex Valley WUA.

A WUA brings individual water users at a local level together to co-operate on how best they can use their water resources (RSA, 1998). It may also carry out water management duties if delegated the function by a Catchment Management Agency (CMA). Unlike an Irrigation Board (IB) that was geared to serve only the interest of the apartheid commercial farmer, a WUA is meant to be a much more democratic entity, created to serve the interests of every water user, big and small. This includes emerging farmers, farm workers, municipalities, industries, household users and recreational users.

In this study an emerging farmer is defined as a new entrant farmer, formerly disadvantaged by apartheid, with farming as the main source of livelihood. These may include beneficiaries of government land reform, share croppers and former farm workers who now farm for themselves.

In this chapter, findings from observations and semi-structured interviews are presented. First, I describe and explain the current areas of operation of the WUAs and the status of their emerging farmers. Second, I go on to the findings from the interviews. Interviews were conducted with emerging farmers, commercial farmers, government officials and officials from an organization representing emerging farmers. The qualitative data

describe the perceptions, feelings and observations of benefits of inclusion of emerging farmers in WUAs. It looks at infrastructure sharing, participation and skills transfer. I will first characterise the farmers, before going into the findings.

4.2 A profile of the farmer

A total of 13 farmers were interviewed, seven of which where emerging farmers. A representative from the National African Farmers Union (NAFU), a body that looks after the interests of emerging farmers, was also interviewed. Six commercial farmers were interviewed. There is need to distinguish between an emerging and a commercial farmer.

4.2.1 Emerging farmer

Four of the seven emerging farmers interviewed completed primary school (passed grade 7). Two others have post school education. These two are the managers of the co-operative trust farms in Groenland. One has attended Grade 12.All the emerging farmers except one grew up on farms as children of farm workers.

All emerging farmers are male and are of varying ages. Three are in their fifties, one in his late forties, two in their late thirties and one in his late twenties. All those above forty are also the least educated and have been farm workers all their lives. The two who are in the late thirties are the more educated ones, with tertiary education. They demonstrate a higher skill of communication and confidence (see Table 1). The one who attended Grade 12 is the youngest, at 28 years of age. The three emerging farmers above the age of forty struggle to speak in English, as they are only exposed to their local Afrikaans language. The youngest emerging farmer only worked for one year on farms before benefiting from land reform. He speaks better English as he grew in the city (Cape Town). He also works for the WUA as a driver.

Emerging farmers have a close knit social relationship. They all know each other's families from a few generations back, mainly because they were all farm workers. They gather together and chat at drinking places, church and on their farms. Since they all face

similar challenges in their farming, they inevitably discuss these challenges. In two social gatherings I attended, conversations generally drifted towards farming.

However, the co-operation seems to end at the social level. There seems to be no co-operation at the agricultural level. The emerging farmers do not pool resources. For example, three farmers I spoke to each hired a soft fruit consultant for training. In the Hex Valley, they pay a mentor/consultant for training workshops and equipment independent of each other, where it is apparent that one workshop for everyone will save resources. Communicating such needs is the bigger problem as the farmers do not show high levels of organisation.

4.2.2 Commercial farmer

On the other hand all commercial farmers have tertiary education. Two have gone to an agriculture college, three have graduated from university and the last one dropped out of Law School to go farming. Table 1 at the end of this section shows the different levels of education of commercial and emerging farmers.

All commercial farmers are children of farmers. They are all in their forties, except one. The exceptional one is in his early fifties. They live on their farms with their children, who are involved in the farming activities, when they are not in school. On one farm visited, it was actually the son who was in the farm office, handling the payroll and purchasing. On another one, the farmer's wife was busy on the telephone with some lawyers, requesting legal advice on some dishonest supplier.

Commercial farmers also exhibit strong social ties; they liase on a daily basis. They hold social functions where they meet, drink and braai especially on holidays and weekends. While I was interviewing farmers in Groenland, they constantly got interrupted by either a call or a visit by the neighbouring farmer. Conversations were all business, discussing new prices, purchasing of inputs or packaging material. They also buy from each other. In Groenland a very big commercial farmer acts as some kind of consultant and supplier to the other commercial farmers. They also have local organisations that represent them.

In Groenland, they have the Elgin Grabouw Vyenboom and Villiersdorp (EGVV) Agricultural Association and in Hex Valley they have the Hex Valley Table Grape Association.

Respondent	Status	Education
4	Commercial farmer	LLB first yr(dropout)
5	Commercial farmer	BSc Agric
6	Commercial farmer	BSc Agric
7	Emerging farmer	Dip agric
8	Emerging farmer	Std 6
9	Emerging farmer	Std 6
10	Commercial farmer	BSc. Engineering
11	Emerging farmer	B. Comm
12	Emerging farmer	Std 4
13	Commercial farmer	Dip Agric
14	Commercial farmer	Dip Agric
15	Emerging farmer	Grade 12
17	Emerging farmer	Std 5

Table 1: Education levels of farmers

4.3 Groenland Water Users Association.

Groenland WUA was established by the minister, according to the Water Act (36) of 1998, on 10 June 2005, after an extensive public participation that included local government, civil society, small scale farmers and women among other stakeholders. It is situated in the Breede WMA of South Africa in the Western Cape Province, in the Theeswaterskloof Municipal Area.

4.3.1 Description

The drainage area consists of the Palmiet River catchment area and its tributaries. The area stretches from the Hottentots Holland Mountains in the North/North East, through

the Kogelberg Mountains in the West/South West, and the Groenland mountains to the East all the way to the confluence of the Palmiet and Krom Rivers to the North West.

It is divided into four sub-areas and one sub-district. These sub-areas are Nuweberg, DS Eikenhof/Kogelberg Dam, Solva-Krom Rivers and Arieskraal/Klein Palmeit Catchment. These sub-areas are autonomous and are all represented on the management committee. The original Irrigation Board constitutes the sub-district. (See Appendix B)

Sub-area 1, Nuweberg, is upstream and also has a small dam, the Nuweberg Dam. It is responsible for raw water supply and ensures the uninterrupted supply of water to all the downstream users in the sub-areas. There is no other infrastructure besides the dam and water use is mainly environmental and recreation. The sub-district is the original IB and houses the major commercial farmers in the surrounding Elgin area. It owns the main Eikonhof Dam, located on the outskirts of the small Grabouw town, and is responsible for the Groenland storage and distribution network. It has a capacity of 29million m^3 and serves a network of over 90km of pipelines. Sub-area 2 looks after the Kogelberg Dam, which is on the upper reaches of the catchment to the West. Two commercial farmers draw water from this dam. Sub-area 3 consists of the tributaries; Krom and Solva Rivers. It has no infrastructure as water is drawn from the river, and is used mainly by households. Sub-area 4 is further downstream, to the confluence of the Palmiet and Krom Rivers, where the water use is mainly small scale and domestic. Water is drawn straight from the river. The domestic users are the households who use water in the home, and small backyard gardens. The small scale users referred to here are the farmers in Vhuki, one of the two emerging farmer schemes in the WUA. Map 1 shows the area in detail

The WUA's main task is to manage, operate and control water use, including storage of winter rainfall and groundwater abstraction. They have been delegated the management function by the Minister according to section 63 of the Act, because the Breede CMA is not operational yet. The majority of members are farmers, from the very big commercial farmers to the very small, half hectare subsistence farmers on municipal commonage. It has a total of 187 members on the register, of which 175 are the various farm properties.

For farmers, membership is per property, and commercial farmers are actually 120. The other 10 are industrial users and two are local authorities; Cape Town Metropolitan Council and Grabouw Municipality.

All farmers originally belonged to the IB, and they all automatically became members of the WUA. Although the IB still exists, members individually belong to the WUA, where they can stand for election in the management committee and go through a public election process. Votes are allocated on the basis of hectares owned. For five or less hectares, a farmer has one vote, or has one vote for every 30 000m^3 of water. Any one farmer may not have more than ten votes though. Nominated members only carry one vote each, and it is important to note here that emerging farmers are nominated members. The term of office is three years for elected members, but only one year for nominated members.

There are 28 commercial farmers with land in excess of a 100ha, while most other commercial farmers' landholding ranges between 20 and 60ha. On the management committee, nine seats are reserved for irrigation, four for industry, two for small scale users and households, two for small farmers, three for local government, one for environmental NGO and one for recreational users (see table 2). The small farmers referred to here are the emerging farmers, while small scale users are individuals and farm workers who have small backyard garden plots. These have been given space to voice their own concerns, separate from the commercial farmers who own the land where they live. Out of the nine irrigation seats, five are for males, with one of the males being black. The other three are for females, also one being black and the last is reserved for a disabled farmer.

The approved constitution of the WUA promises to actively assist emerging farmers in the association. However, only two emerging farmer projects exist in the area, hereby referred to as schemes. These are both trusts and are run by their respective trustees, who are also shareholders. It is important to note here that commercial farmers have a club that is open only to members.

	MALE		FEMALE			
Occupational Categories	**Black**	**White**	**Black**	**White**	**Disabled**	**Total**
Irrigation	1	4	1	2	1	9
Other e.g. Industry, Mines, Forestry Recreation etc	1	1	1	1		4
Individual water users e.g. farm workers, household users etc	1	1				2
Small Farmers	1	1				2
Local Government	2	1				3
Total	6	8	2	3	1	**20**

Table 2: Management Committee of Groenland WUA **Source: DWAF.**

It serves food and drinks, has activities like horse riding, canoeing (in the dam that serves the WUA) and legalised gambling. The nature of the activities and the membership costs have helped maintain an all white set up. Invariably, all the whites in the area are commercial farmers. During a few hours I spent at the club, most of discussions I listened to were business oriented, even though it was a casual setting.

Another interesting development is that the emerging farmers say they were 'invited' to the management committee. Since there are two seats on the committee for emerging farmers, and there are two emerging farmers, it sounds logical that they automatically make it onto the committee. On questioning them however, they admitted they had been asked, by some IB members, to come and claim their seats on the WUA management committee.

4.3.2 Scheme 1: Vuki Farm Trust

The scheme began as a group of farm workers who took over a liquidated farm. The liquidator gave the farm workers the first option of buying the land and they took a loan from the Land Bank to buy it. However they later benefited from a government programme for land reform, and used the funds to service the Land Bank loan. The scheme farms commercially and is a competent producer of apples and wine grapes. They

market their produce to their own buyers, who they contracted with help from a hired consultant.

4.3.2.1 Participation

The WUA provides two seats for small scale farmers on the 20-member management committee. The scheme, although it is a large commercial farm, falls under the emerging farmer category, possibly because it is a black owned co-operative with 39 members. The scheme has a seat on the committee and the scheme manager, who is also a trustee, attends meetings. The WUA meetings are held at a local power station office building. All members are invited. In the meetings I attended, this particular manager was present but he never said a word. When I asked him why he never contributes, he admitted that he does not know much about water issues:

> The first time I went there I had no idea what was going on. Now it's better because I can follow things through. I have not made any inputs yet because there is not much I am able to say so far. But I go to meetings because I want to know what's going on. We are members so we must know what is happening.

Although he does not contribute, the scheme manager comes to the meeting every time and listens to what is happening. Issues discussed in these meetings include monitoring of dam levels, water allocation, financial obligations, river health and election of committee members. Wastewater disposal and pollution were also discussed in the meetings that I attended. These are important issues to which this farmer gave no input.

4.3.2.2 Skills Transfer

The scheme is made up of people who are former farm workers. In terms of farming skills, they all seem to fare very well without the assistance of a commercial farmer. The scheme has always operated on its own. The farmers made it a target of farming successfully alone without anyone else's hand of charity.

The scheme manager (farmer 17) strongly denies any need of skills from commercial farmers, although he alluded to the fact that they need help with management:

> There is no feeling that we work against each other. I know the government's feeling is that commercial farmers should help emerging farmers, but it is not happening. When we started farming we made it our target to achieve on our own. These so called white farmers do not really help. If you go to ask for something, they have too many excuses, now your crops will not be waiting all the time. We can do this on our own. What we do not know is the business management side, and we have hired a consultant to help us with that.

They do not have mentors or any technical relationship with commercial farmers, although they hire consultants every now and then to help with issues beyond their scope. The DoA has been trying to help with some free short courses on leadership and communication, delivered through Elsenberg, a local agency.

4.3.2.3 Infrastructure

This scheme has its own account with the IB dam where they get their water from. They took ownership of this, together with the irrigation equipment, when they assumed ownership of the liquidated farm. The IB still manages the dam. They pay for their water like every other farmer in the WUA. Although they also take water from a seasonal stream that passes through the farm, they are beneficiaries of the WUA irrigation scheme where they draw water by gravity into the fields.

It has proved cheaper for the emerging farmers to connect to the existing network scheme than to construct one of their own. As the scheme manager (farmer 17) aptly put it:

> Pipelines run through our farm from the IB dam, so it is cheaper for us to connect to the system than establishing our system from the river. All we use here is gravity.

Indications here are that the scheme is meeting the farmer's water requirements.

4.3.2.4 Summary

Scheme 1 is a farmer owned and managed commercial entity run by 39 former farm workers as a trust. They take participation seriously but do not contribute in meetings. They are connected to the WUA irrigation network and pay for their water rights.

4.3.3 Scheme 2: Lebanon Fruit Farm Trust (Thandi).

The scheme began as a partnership with a large commercial farmer, who was the main benefactor of the project. He provided 100 hectares of land at nominal value and helped to train the shareholders. It is now a trust farm of 147 families. The shareholders, also trustees, are former farm workers who agreed to this arrangement to get assistance as they embarked on commercial farming through opportunities that came with land reform. The benefactor still owns 30% of the project, making him an influential shareholder. The commercial farmer has also been handling the administration of the scheme until recently, when the scheme recruited a full time farm manager. The manager is a qualified person, who is also a Historically Disadvantaged Individual (HDI). He is not a shareholder in the scheme, but is hoping to join when the scheme acquires another 100hectres that they have applied for. However, they still sell their produce through the commercial farmer. The scheme farms wine grapes and apples.

4.3.3.1 Participation

This scheme also has a seat on the WUA management committee. The scheme manager attends the meetings, although not always. He has missed the last two meetings by the time I talked to him, mainly because he was busy looking for benefactors who will help with re-capitalising the farm. A check on the minutes of meetings also showed he does not contribute much when he attends. He also attributed this to lack of knowledge on water issues. The farm does not get water from the scheme yet. They use winter rainfall. This may be another reason he does not come to meetings. Issues discussed in the meetings are already mentioned under scheme 1.

4.3.3.2 Skills Transfer

Having been farm workers, the trustees do not lack technical skills to farm. They also benefited a lot from their partnership with the commercial farmer. He provided equipment and mentored the farmers for some time. They are now on their own with their new manager, who is not yet a shareholder on the farm, but a qualified person who is in charge of all managerial duties on the farm.

The commercial farmer who partners them thinks that these farmers do not need any technical skills, but the managerial skills. Farmer 5 said:

> On the ground they do not need a lot of skills transfer because that is what they have been doing all their life. They do not need to be trained on how to prune or how to operate a tractor. But they do need training on the management side of things, like financial management and so forth.

A fellow commercial farmer (Farmer 4) in the area however does not think so and is strongly against the idea of emerging farmers because according to him the whole emerging farmer concept does not work:

> The whole idea of 'emerging farmer' is an ideal. If it was such good an idea to put people on the land then you would have had many more white people on the land long ago. To be a farmer you need money! You cannot talk about an emerging farmer in the fruit industry. The capital is too expensive. The only way you can have them is if they are subsidized, and the state cannot afford that.

Observation, however, showed that this project still remains dependent on the commercial farmer. They still go to the commercial farmer for simple requirements like printing of invoices and financial reports. They also hold periodic meetings for marketing purposes. The current selling contracts the project holds were all arranged by the commercial farmer and so they still meet for supply and price discussions.

The commercial farmer had been mentoring the emerging farmers of the project until this year (2007) when the new manager came on board. Although the manager claims there is not any mentoring still happening, it can be argued that the farmers have already taken their lessons from the mentor. The DoA has also been trying to help with some free short courses on leadership and communication, delivered through Elsenberg, a local agency.

4.3.3.3 Infrastructure

The scheme is not connected to the IB irrigation scheme. At present they meet all their water requirements from winter rain. This water is stored in an off channel dam which is built on the commercial farmer's property. They have water rights for the winter rains

they store. The scheme is in the process of seeking funds to expand by 100 hectares, and they will need more water. They have just received R4.2 million from the Land Bank for this purpose. They are now looking for any underutilised water rights they may find among the farmers. This means they will need some irrigation equipment to connect to the irrigation scheme once they get the water. They are hoping to get assistance from the Department of Water Affairs and Forestry (DWAF) for this purpose. The WUA manager says they do not have any water available, so members can only trade rights between themselves. This project had hoped to get water rights from a farm that liquidated in 1998, but it is not possible anymore. The rights have reverted back to the WUA and were reallocated to the next applicant on the waiting list because a long time had lapsed without any claims for them.

4.3.3.4 Summary

Scheme 2 is a commercial entity that is owned by former farm workers who employ a professional manager. The manager, who represents the trust farm in the management committee, does not always attend meetings and when he does, does not contribute much. The farmers in this scheme benefited from some mentoring they received from the neighbouring commercial farmer, who is also a shareholder in the scheme. The scheme uses winter rainfall and is not connected to the WUA irrigation network.

4.4 Hex Valley Water User Association

The Hex Valley Water User Association was established by the Minister of Water Affairs on the 9th of March 2007 after an extensive public participation process by all stakeholders. It is situated in the Breede WMA in the Western Cape Province of South Africa.

4.4.1 Description

The WUA operates in the catchment of the Volschatkloof River, Spek River, Sandriftkloof River, Bulshoek River, Amandel River and the Hex River. The operational area consists of quaternary drainage areas H20A, H20B, H2OC, H20D, H20E and H20F (see appendix B) The area itself is characterized by high rising mountain ranges to the

East and North, with a gently sloping West and Southern side. Much of the farming happens along the valley at the foot of the range, where different sized commercial plots are located along the Hex River. In the heart of the valley is the village town, De Doorns, which provides commercial and domestic service to all the valley inhabitants. The inhabitants are predominantly farmers, both commercial and emerging. The people who stay in the town are workers in service shops and banks. Farmers all live on their own properties on the farms.

The WUA is an aggregate federation that encompasses five free standing Irrigation Boards, emerging farmers and other stakeholders. These are Hex Valley Irrigation Board, Matroosberg Irrigation Board, Groothoek Irrigation Board, Bovenstewater Irrigation Board and the Drie Rivier Irrigation Board. Emerging farmers have three seats on the management committee, two reserved for males and one reserved for a female. The five IBs have eight seats. The representatives of the IBs are all white males. The seats are allocated as one seat for each IB and the other three seats contested by any member of from the five IBs. In practice though, these three members have just been nominated to the seats because of their 'seniority' in IBs. This was not difficult to achieve as commercial farmers by consensus observe some unwritten hierarchy of seniority amongst themselves. Other represented sectors are Breede Valley municipality (1), individual water users – farm workers and households (3), small farmers, who are the emerging farmers (3) and one seat for the neighbouring Worcester-East WUA. They were given this seat because they are downstream of the Hex River and therefore needed to have a say in water allocation decisions. The management committee has 16 members, six of which are black (see Table 3). Voting by IBs' representatives is one vote for every hectare or for every 37 500$m^{3\ of}$ water allocated .Maximum votes are ten per person. This includes emerging farmers, but other nominated members only have one vote each. The term of office is three years.

The WUA takes responsibility for the water in the Spek, Volschgat and Sandrift Rivers, and also the Roode-Elsberg and Laakenvallei Dams. The distribution network, called the Sandrift scheme, spans all the five IBs and the small town. The WUA is also building the

Osplaas Dam, a 2,7million m^3, new water works that will deliver seven million m^3 of water a year.

	MALE		FEMALE			
Occupational Categories	**Black**	**White**	**Black**	**White**	**Disabled**	**Total**
Hex Valley, Matroosberg, Groothoek, Bovenstewater, Drie Rivier Irrigation Boards		8				8
Municipality (Breede Valley)		1				1
Individual water users e.g. farm workers, household users etc	2		1			3
Worcester-East WUA		1				1
Small Farmers	2		1			3
Total	**4**	**10**	**2**			**16**

Table 3: Management Committee of Hex Valley WUA. **Source: DWAF**

The WUA will 'manage, operate and control water use from its resources', according to its constitution. Although it has not been doing so in the past, it has also begun to monitor ground water abstraction. The WUA has been delegated water management duties by the Minister according to section 63 of the Act, because the CMA is not functional yet.

At the moment, the WUA has more than 200 farmers as members. The scheme manager does not have an accurate number of all farmers since commercial farmers belong to their various IBs. Farm sizes here are largely small compared to those in Groenland. They average between 30 and 40 hectares though some farmers own more than one farm. Farmers live much closer to each other on their farms. Emerging farmers live on the other side of the town, where their land is located. They are largely all farm workers who go to work on commercial farms during the day and tend to their own farms in spare time. The few who do not work on the farms work for the WUA.

Hex Valley WUA has taken some considerable steps to help emerging farmers. IBs have each given up some water rights to be allocated to emerging farmers. They have also made available R25 000, 00 for vegetable farming to emerging farmers and assisted the

Sandrift New Farmers by advancing them R90 000, 00 to prepare 1,5 hectares for table grapes.

4.4.2 Participation

There are three seats for emerging farmers on the management committee. These are classified as 'small farmers'. The Irrigation Boards have eight seats on the same committee. The emerging farmers I spoke to are aware that they have representatives on the committee and they know them. However, they do not have any form of consultation with them. They had not held any meeting with them by the time of writing. The other representative, a former school teacher, goes to meetings and can converse better with commercial farmers. He has also not held any meeting with anyone and seems to participate for his personal benefit only. The third one was not even mentioned, giving indications that this representative was equally inaccessible. These representatives were actually nominated by these emerging farmers for these posts. When I asked one farmer how they had chosen someone they do not talk to, his response was that:

> We just pointed out to people we thought can talk better than us there, who know maybe a bit more about these things, but up to now we have no idea what happens inside those meetings

One farmer said he does not know any representative and has no idea of any committee anywhere. He was under the impression that meetings were closed affairs for white commercial farmers only. He had actually written a letter to the Chief Executive Officer (CEO) of the WUA asking for more water, thinking it was the only means of communication available. This Farmer (11) said:

> I am the managing director of the farm but you know what? I am not aware of any meetings happening. Now this thing that you are telling me that we have Irrigation Board and emerging farmer meetings, that is news to me! … What we did is we wrote a letter. That is all we did for now. That is the only communication between us and the board so far. As I said we only started last year, so we do not have any chairs on the board.

The ignorance of this farmer is understandable because their project is the youngest, but it worrying that nobody in the WUA took the responsibility to inform him. He also says he does not belong to the WUA, though he gets water from the scheme. The CEO of the WUA says everyone who gets water from the scheme is a member.

The other emerging farmers are aware they have a representative and even know him, but they have never had a meeting with him. What makes it more serious is that these representatives are also workers of commercial farmers. There is a serious interplay of power relations here. It is unlikely that the representatives can face commercial farmers (their bosses) as equals in a management committee meeting.

4.4.3 Skills Transfer

In the Hex valley, the emerging farmers currently work as farm labourers. The few, who are not, are former farm workers. They possess an admirable amount of skill in the areas they work in. I witnessed grape field preparation, drip irrigation automatic control and irrigation water scheduling by these farm workers. It is evident that they are competent in their tasks. However, they possess specialised skills in single-task operations only. For example, those who prepare the field cannot operate the automated drip irrigation system. How they apply themselves on their own plots will therefore evidently be inadequate.

There are mentors who are engaged to help emerging farmers. Although officially these mentors are many, in practice it is different. All the emerging farmers I spoke to use one mentor, a full time farm manager on a commercial farm. They also pay for this mentoring service. The mentor helps with planting, applying herbicides and harvesting. He also brings his own equipment for this and charges the emerging farmers for it.

The emerging farmers themselves claim they are not learning anything from these mentors. Farmer 12 had this to say:

> We do not have that kind of relationship. We do not get any help. We don't have enough equipment but we don't have a situation where one says there are new farmers that need assistance and let us help….we have a guy that we pay who helps us. Someone advised us to talk to him, and

> we did so because it is part of the requirements when you apply for land. Otherwise we could do this all alone. Collectively we have enough experience.

It could not be established whether this is statutory requirement by the Department of Land Affairs (DLA). One official simply said they encouraged it. All five emerging farmers in Hex Valley said they can farm alone because they have experience as farm workers. One said he was a farm manager for 20 years and does not need any teaching. However, when I asked this farmer (Farmer 8) if he thinks they have enough water management skills to go it alone successfully, he said he does not think so:

> I think we must be taught a bit. The government must come and teach us how to use water. We get water for say one hour or two hours a day, but we do not know if there is enough water that we put in the field.

While it is clear that emerging farmers can farm on an operational level, it is apparent that they need other skills to farm commercially. Such skills as marketing, planning, and financial management are part of commercial agriculture.

Commercial farmers in the area share the opinion that skills have to be learnt through individual effort. One commercial farmer (Farmer 10), an engineering graduate who learnt a lot from his father about farming, insists one has to be very willing to learn because there are things one cannot learn from elsewhere:

> You can go to university and they teach you, but practicing is totally different. I did not get on the farm and started things just like that. You have to be very willing to learn. But in the end there are things you can only teach yourself, especially on the management side. Where must I go for help? I have to go on the internet and read books. I have started a mushroom business, but I had to go find a guy in Transvaal who has experience on them. I had to fly to seek help. If you are not willing to put an effort from your side you will not make it.

It is being taken for granted here that every farmer has access to the internet, is able to use that internet and has money to travel. Emerging farmers in this area do not have these resources. Another commercial farmer thinks it is important to identify skills before

giving the emerging farmers land. Farmer 5 said he has no relationship with emerging farmers and government should only give land to those who already have the farming skills:

> I think there is no better way than to identify a farmer who really likes farming and has the knowledge and have a good record and give them an opportunity. The government should not just give the land at first, but if someone proves themselves twice or thrice, then the land can be theirs. In the meantime he can educate his children about what it is like to be a farmer. It is a different thing to be a farmer from being a salaried person in town.

Another commercial farmer (Farmer 14) believes skills transfer will happen only later in the relationship, but not from government:

> It is too soon for things like skills transfer to happen. Obviously it will happen, but not from government nominating people to give land to. That will not do. What will do is for commercial farmers to employ some of their own people who are capable and empower them and give them land. They can monitor and complement and support them. I have been in farming for 50 years but still have a lot to learn. I still have a lot to find out.

Maybe the question that should be asked Farmer 5 is where would that person have achieved the 'good record' for them to get the opportunity, since they will not have land in the first place? Or should the commercial farmers drive land reform as Farmer 14 suggests? The farmers clearly state that they do not believe in giving people land, and then building heir skills base. According to them, only those who can farm should have the land, that way there will not be any need for skills transfer.

One very apparent thing is that the emerging farmer and commercial farmer are worlds apart. This somehow makes the learning problematic. One commercial farmer admitted that the inclusion was good, 'but if they learn, I don't know'. What Farmer 13 then went on to say is a lot more revealing:

> … for you to be a successful farmer your knowledge of what you require for the plants is only 10% of what will make you a success or not. Personally I think you need to know how to work with money, how to budget, how to plan. I can give you a list, but to help someone with that kind

> of skills is not my job, it is the government's job. Technical skills can be found anywhere, in books etc, but management skills are more important.

Commercial farmers here are showing they do not expect skills transfer to be happening. More importantly though, is that they believe it is not their responsibility.

4.4.4 Infrastructure

In Hex Valley, all emerging farmers are connected to the IB scheme. They pay R250 000, 00 to join the scheme and then pay for their allocation. They received a grant from government to pay this amount. The five IBs had built extensive networks that distribute water to farmers and the emerging farmers just have to pay their fee and get connected to the scheme from the nearest farmer.

However, the scheme does not guarantee enough water. There is a water shortage in the area and the WUA is busy building a new dam to beef up the water security. Emerging farmers are under the impression that when they are denied any further water allocation, it is because the commercial farmers do not want to give them water. Farmer 8, an emerging farmer, said:

> When we got this land the commercial farmers asked us where we were going to get the water. It is obvious they are not willing to share it. We do not have enough water. Right now they are building a new dam so we hope we will get more water when it is finished.

Farmer 11 is under the same impression:

> We do not have enough water. When we started last year and applied for water they told us that the applications are closed and we are only receiving a surplus from them…. It is not enough!

I went around the whole scheme and the new dam with the Chief Executive Officer of the WUA and got a first hand impression of the water situation. The current supply is not enough and the new dam, partly financed by DWAF is being built to rectify that anomaly. The emerging farmers are not aware that it is shortage of water that has restricted further allocation.

4.4.5 Summary

In Hex Valley emerging farmers have reserved seats on the management committee, but they do not participate largely because of disorganisation and ignorance. They all are current farm workers who do not lack technical farming skills, but struggle on the management side of the business. They currently use mentors, who also double up as consultants and they usually pay for services rendered. Commercial farmers think skills transfer cannot be easily achieved. Emerging farmers are paying members on the irrigation scheme, to which they are all connected.

4.5 Discussion

The situation of emerging farmers was identified in the three categories of infrastructure sharing, participation and skills transfer. From the respondents' answers and observation by the researcher, some evident issues can now address the research questions, but first, a comparison of the two associations.

4.5.1 The Two WUAs – A Comparison

There are stark differences between Groenland and Hex Valley WUAs. The two institutions have operated for a similar short time, but emerging farmers in Groenland operate on a much larger scale – more than a 100hectares. They also operate as co-operative schemes or trusts and farm together. On the Hex Valley, plots are much smaller. Emerging farmers form groups to apply for land from government, but then go on to split it among themselves. They still end up farming as some loose co-operatives though, in groups of between eight and 12. The land is not very large though, averaging five hectares per farmers. There are four co-operatives (Sandrift Nuwe Boere, Akker Small Emerging Farmers, De Doorns Wine Cellar Project and Hexvallei Emerging Farmers) and two individual properties.

In Groenland, farmers own and farm their plots on a full time basis. In Hex Valley, emerging farmers operate more like part time farmers. They still do some day jobs on commercial farms and tend to their own plots in their free time.

The Groenland farmers participate as individuals in the WUA meetings, while the Hex Valley farmers participate through representatives. This would logically mean that the Groenland farmers have a better chance of presenting their concerns to other WUA members since they do not require a prior organization before going to meetings. However, it is only one scheme that takes attendance seriously in Groenland, the other scheme manager is always somewhere looking for inputs. In the Hex Valley, the representatives do attend meetings but they are disorganised. They do not hold meetings with members before attending meetings. It is therefore illogical to call them representatives. However in both cases, emerging farmers do not say much in meetings.

Having a background in farming as farm workers, both associations' emerging farmers have some technical farming skills, but lack the managerial ones. In Groenland though, employing full time managers has helped operations, while in Hex Valley self managed small plots tend to struggle as owners divide their time between two jobs. The two associations' emerging farmers do not have practical cordial relationships with commercial farmers. Although they do have mentors in Hex Valley, these are more of consultants who get hired and paid. In Groenland, they operate on their own, with no mentors, although one scheme had a mentor until recently.

In terms of infrastructure, the Hex Valley farmers are all connected to the system and are paying members with water rights. In Groenland, only one scheme is connected and the other one uses winter rainfall. This is stored in an off channel dam located on a commercial farmer's land.

4.5.2 Participation

DWAF documents say that WUAs will give HDIs a voice and platform to communicate their needs (DWAF, 2002). There is a general belief that the WUA is formed with a common goal that will reflect majority interest while recognising those of the minority (DWAF, undated b). It is not clear how a solution can recognise a minority while serving

the majority, bearing in mind that emerging farmers are the minority, with two or three seats in the WUAs.

The institutional provisions have been made to provide seats for emerging farmers on management committees, so they can participate. In this study, participation is limited to mean only the meaningful contribution of emerging farmers in WUA meetings. The emerging farmers do come to meetings, but they are not contributing meaningfully to debate or decision making. My observation from the meetings I attended show that the emerging farmers rarely say anything. They have seats on the committees and the majority of them do attend meetings, but are quiet during proceedings. The emerging farmers say this is because they do not know much about water issues at this point. Most of the time their participation is limited to their physical presence only, a case Manzungu (2002) refers to as 'a headcount'.

Lack of participation is also caused by of lack of organisation. The representatives do not organise meetings with their constituencies before going to meetings, and other members do not even know their representatives! While emerging farmers do understand that they have a right to water, they are not aware of any other legal provisions that they are entitled to. This may be a result of their limited formal education and its consequent impact on legal literacy. It is understandable then, that being new to such bodies, it will take a while before emerging farmers can say something. Currently, they lack the skills to participate (Warner, 2006)

Commercial farmers concur that emerging farmers do not participate because of lack of capacity. To those of them who are on the committee, they say it has taken them years to learn, so they do not expect their counterparts to be at the same level anytime soon. Commercial farmers, who all have tertiary education and have been in the system for some time as IB committee members, take participation seriously and are always in meetings. Their social relations also come in handy. They have known and trusted each other's families for long, which allows them to discuss issues outside committee meetings and therefore 'participate' informally. Raising issues in meetings from this

background becomes less intimidating. So it can be concluded that level of education and internal organisation are arguably the biggest hindrances to participation by emerging farmers (De Lange and Faysse, 2005).In the Hex Valley, emerging farmers being farm workers are also at a disadvantage. Commercial farmers are their bosses and it is unlikely that they feel they can engage them as equals in the meetings. The power relations at play here are in favour of the commercial farmer.

Moreover, the voting process is set to exclude the influence of the emerging farmer. Votes are allocated using hectares, so the bigger the farm the more votes the farmers has. Bearing in mind that some commercial farmers have 50 hectares or more of land, while emerging farmers have between three and five hectare each. One commercial farmer can practically outvote all the emerging farmers. Looking at Groenland WUA for example, the two emerging farmer projects can never sway a decision in their favour against more than a hundred commercial farmers. While it makes business sense to give more voting powers to bigger shareholders, for equity and transformation purposes, it may achieve the reverse.

Government officials are not certain whether participation is happening or not. They insist that operations of WUAs are guided by legislation and that emerging farmer seats are filled in the management committees. None of them has been in a WUA meeting before, and they are guided by minutes of meetings they receive from the WUAs. It is not clear if these minutes are monitored to track emerging farmer participation, but the officials could not say to what extend the emerging farmers are participating.

It is clear the expected participation is not happening yet, and government on its part, is not monitoring this process. Communication between emerging farmers and their representatives on the committee is poor. Both emerging and commercial farmers agree that participation is not happening yet because of lack of capacity.

4.5.3 Skills Transfer

In her speech in Limpopo (DWAF, 2005) the Minister of Water Affairs said she hoped there will be skills transfer occurring within WUAs. No other DWAF documents say anything about skills transfer. Presumably this may be because it is an area that should be handled by the Agriculture and Land Affairs departments. DWAF (2004) scantily mentions the need for technical and financial support for emerging farmers, and need for linkages with the Department of Land Affairs. It does not say how this should be done. Although DLA insists that land reform beneficiaries who are emerging farmers should have mentors to assist them with capacity building.

In WUAs, agriculture extension services are not mentioned. In the study, some farmers in Groenland mentioned receiving some free short courses from DoA on leadership and communication. They have no idea what else they will receive, and when. Indications are that they also simply have these trainings organised for them by DoA, without their input on what they want to be trained on. In the Hex Valley, they have never had such workshops, and they are not aware of any extension officers existing in the area. They have seen DoA officers only once, who had come to monitor some mentoring exercise in the area.

From my observation it emerged that emerging farmers have the technical skills to farm. On the ground, they are technically competent. The on-farm skills like planting, pruning, harvesting, irrigating and weed control are things they have been exposed to as labourers. However, one needs more than technical skills to be a successful farmer. Managerial skills are also critical. These include office planning, budgeting, cash flow, marketing and purchasing among others. They also lack some generic skills on water issues, like water regulation and environmental management.

Emerging farmers say they work alone and do not receive any skills from commercial farmers. Their supposed mentors have practically been functioning only as consultants who are hired and get paid for their services. They insist they can farm alone, but need skills on how to use water efficiently and how to manage their farms.

Commercial farmers have varying opinions on this. Some believe the government was wrong in giving land to people with inadequate skills and should only have given those with capacity to farm. One commercial farmer said these are former farm workers so they can learn from their own work. Another asserts that emerging farmers should put their own effort into this because commercial farmers also had to learn on their own. Yet another one said skills transfer will happen, but it is too soon to expect it. All the interviewed commercial farmers, except one, have no relationships with emerging farmers. The one who has is actually a shareholder in a share cropping venture. An interesting contribution from commercial farmers was that managerial skills are the responsibility of government, not commercial farmers as they had no resources to provide that to emerging farmers.

That may sound arrogant, but there is a cruel truth on that assertion. Commercial farmers received a lot of government support to acquire land and inputs during apartheid (Forde, 1925). They also received preferential training and market protection from the same government (Nel and Davies, 1999). The irony is that they received their skills from government support. However, it will be an exercise in self deception to expect today's government to afford the same incentives. It is a government that is living in a democracy and is supposed to provide for everyone, unlike the previous one that prioritised a white minority. While commercial farmers may be correct to say it is government's responsibility, one expects they should be more accommodating when the same government asks them to help emerging farmers. It appears that this may be the best way government can exercise that responsibility for now, although fairly speaking, it is unthinkable to just expect the commercial farmers to provide this help without any form of incentive.

Government officials maintain that there are mentors in WUAs so skills transfer will happen. Official 2 actually thinks that co-operation that leads to skills transfer will happen because commercial farmers have no choice:

> I can tell you here that they do not have a choice because they must transform and have emerging farmers as part of them in management committees. There are examples of those that have transformed already and they are moving towards the fact that everyone must be considered. The emerging farmers receive a lot of support from the previous IBs so a WUA as a transformed body is fostering co-operation.

It is important to note here that WUA are new institutions, and therefore cannot be 'transformed bodies' because IBs can still exist inside a WUA, like in the Hex Valley case, and come to the WUA as represented body. It provides its own members to the WUA management committee.

Another thing to appreciate, according to the other official, is that there is a lot of experience available from commercial farmers that emerging farmers can build on for the future. She proposes that because the farmers need each other, co-operation is imperative for the WUA to work. The emphasis is that farmers must start thinking of a mind shift because they do not really have much choice anyway. It is understandable that emerging farmers will need the expertise of commercial farmers, but the reverse in clearly not true. Commercial farmers cannot 'need' emerging farmers. Maybe for labour, but then, they can afford to hire labour, just as they were doing all along before emerging farmers came on board.

The multi-stakeholder WUA seems to result from the kind of co-operation that Paldam (2000) says is enforced by a third party. Government is trying to create co-operation by bringing emerging and commercial farmers together. However, for co-operation to occur, some other factors need to come in, like social capital. Harnessing social capital from the two different groups of farmers will be a mammoth task as they have no history of sharing anything, be it places of worship, of education or even neighbourhoods. The anticipated co-operation is therefore very unlikely to take place.

None of the respondents agrees there has been any skills transfer. The government officials do not explain how skills transfer will happen. Commercial farmers do not think it is their responsibility. Emerging farmers believe they can farm alone, but need

management skills, and they expect government to help. Emerging farmers, as noted earlier, have limited formal education, and more importantly, have never been exposed to the management side of commercial farming. Their capacity to learn, therefore, is easily compromised (Skyrme, 2002). Research has shown that education can make a difference between an average and a good farmer (Zimmerman, 2000). Education also determines the recipient's ability to turn information into knowledge (Teece, 2000). Without any high levels of education, emerging farmers are therefore lack adequate capacity to learn.

4.5.4 Infrastructure

According to DWAF, (undated, b) the advantage of putting emerging farmers in WUAs is that they will establish joint waterworks with commercial farmers, something they cannot achieve alone. There is also government assistance to resource poor farmers especially for irrigation infrastructure. This will be at R10 000/hectare for approved waterworks (DWAF, undated, b).

The emerging farmers interviewed in this study are all connected to the irrigation system except one. This one uses winter rainfall but is in the process of applying for water rights from the scheme. All these farmers are paying members. In the Hex Valley, they are in the process of building a new dam to increase water supply, which will serve both emerging and commercial farmers. Faysee (2006) observed that commercial farmers have no problem sharing infrastructure with emerging farmers, as long as they are paying. This seems to be the case here. Emerging farmers have no issues on sharing infrastructure either. In the Hex Valley, they are only concerned with the need for more water. In Groenland, they are content with the current set up.

Commercial farmers interviewed all said they have no problem sharing resources with emerging farmers because 'it is the way to do things' in the new South Africa. This is very curious as the same farmers shirked the responsibility of helping new farmers with skills. It is suddenly good to co-operate on sharing infrastructure. DWAF provided the bulk of funding for the new dam in Hex valley, because 'they want to assist emerging farmers' who are more affected by the increasing shortage of water in the area. The

scheme manager admitted that the increased supply will help everyone, including the small town residents and commercial farmers who need more water. It is interesting to note the level of co-operation here, where benefits are mutual. We see both farmers benefiting from government without compromising each other, a form of co-operation that Dube and Swatuk, (2002), call 'political co-operation'.

Government officials said the government helps with assistance for building new infrastructure. This is evidently seen in the Hex Valley. The government helps with funds while the WUA also contributes to this cost. It is commercial farmers though, who stand to benefit from this venture since they already have all the systems in place to use this water efficiently (Swatuk, 2005). Some emerging farmers still need to buy more pipes. Besides, the allocation, which is controlled by the scheme manager, is decided by the committee, which has eight commercial farmers compared to three emerging ones.

The emerging farmers do indeed benefit from already built infrastructure, as they could not have afforded otherwise, although they still have to pay for it. Government is subsidising them, and commercial farmers are equally benefiting from that subsidy. This sharing arrangement is benefiting both the commercial farmers more and the emerging farmers. As a result, co-operation is actively sought, and easily achieved.

4.6 Conclusion

This chapter has described the composition on the two case studies and described three areas under investigation. Respondents have identified lack of knowledge as the biggest hindrance to emerging farmer participation. Lack of management skills has proved to be another stumbling block for emerging farmers to farm competently. The challenge now faced by emerging farmers is developing capacity in order to meaningfully participate in WUAs. Infrastructure is being shared with emerging farmers, as long as they pay for it. Although the issue of mentors is a policy issue, investigations have shown that not much is happening in terms of skills transfer. It is made the more insurmountable because there is no programme in place that effectively implements the skills transfer. WUAs as institutions do not have skills transfer on their agenda.

The next chapter will bring the conclusion of this study and make a few recommendations.

Chapter 5

Conclusions and Recommendations

5.1 Introduction

The study set out to establish the benefits on inclusion to emerging farmers in Water User Associations (WUAs). It looked at this through three focal areas of participation, skills transfer and infrastructure sharing. In this concluding chapter, an attempt is made at pulling together the research findings and offering recommendations. Areas of further research are also suggested. These areas are especially focused on making WUAs more viable.

5.2 Conclusion and Summary

The literature review found out that WUAs that exist in areas of historical inequity are burdened by the need for trust. They need trust among members to function well. Incorporating historically disadvantaged individuals (HDIs) into WUAs has also been a big challenge to African countries. The benefits of WUAs have largely been documented as reducing of the cost of irrigation and the democratisation of decision making.

Some scholars have also found out that these new water institutions operate in legal frameworks that are already created by government and therefore do not much flexibility. They lack institutional independence. Most important is the assertion by Faysse (2003) that emerging farmers will benefit from capacity building in WUAs. This capacity building however, has been found to be very elusive or artificial. For example, participation by HDIs has remained ineffective for two main reasons. The first is that there was a rather simplistic assumption that bringing people together will amount to participation. Realities on the ground, however, are different. Participants need more than a mere presence to be able to participate. Their level of education and familiarity with the process are important factors that give members some capacity to participate. The second reason is that representation is not equal to participation (Vanclay, 2004). Once you begin

electing people to represent others, the specially elected people will not constitute a majority of the panel; therefore they can never sway the process in their favour. Another important issue is that influential members tend to dominate proceedings. Access to water also determines participation because people with no water want to have the water before they can sit down and talk about it. These people do not find any reason to participate.

The literature review also found out that skills transfer had traditionally been the responsibility of agriculture extension services. These departments have, however, failed because they were unidirectional in approach. Now the new trend is farmer-led intervention. Skilled farmers help the unskilled; they are called 'para-professional extensionists" by Farrington (1995). It was found out that environment and individual characteristics are important determinants for skills transfer to happen. Emerging farmers lack education and have no farming experience at a commercial level. So providing them with skills will be difficult. Although they do have technical skills, emerging farmers lack the more important managerial skills.

Infrastructure has always been financed by public funds. Investing in good irrigation infrastructure improves water use, but emerging farmers have to co-invest in infrastructure if they want these benefits. There is no history of such kind of co-operation happening in South Africa, but commercial farmers have shown that they do not mind sharing infrastructure with emerging farmers, as long as they are paying for it.

The study found out that emerging farmers are not benefiting from their inclusion in WUAs. The intended capacity building is not happening. Participation remains ineffective because although emerging farmers have representatives, the representatives do not contribute to proceedings in WUAs meetings. They lack the capacity to do so. Lack of education, inexperience and ignorance on water issues has all reduced their participation to a mere presence. Votes are also allocated by hectares, and emerging farmers own small plots, so their votes are in the minority. There cannot be any

democratisation of decision making when the commercial farmers still hold majority votes.

In terms of skills transfer, the study also found out that there is nothing much happening. The extension services are not available in this part of the country and emerging farmers have to use mentors. However, the so-called mentors are actually only consulting and hiring out their equipment when needed. They are not doing any mentoring per se. Besides, other hindrances to learning on the part of emerging farmers is the prior mentioned lack of education, time constraints for commercial farmers and the historically strained relationship between the two groups. It seems there is no mutual trust, an environment that does not breed good relations between the farmers. Emerging farmers, who have been farm labourers for long; do possess some technical skills that allow them to farm. Unfortunately, they do not have the managerial skills that will allow them to farm competently. What is perhaps even more surprising is that government officials spoken to do not seem to have a clue on how they should help here.

The help itself is going to be a big challenge because emerging farmers are pursuing multiple livelihoods. They got land, but still go to work somewhere else. This is understandable because most of them planted vines, and it will take several years before they can realise a first harvest. However, this also reduces the time available for their learning. Although both emerging farmers and commercial farmers grew up on farms, willingness and capacity to learn differs between the two groups because of history. This puts an emerging farmer in a difficult position as far as skills are concerned.

The infrastructure available in WUAs was funded by public funds during minority rule and later handed over to farmers to run. Emerging farmers are co-investing in them because they have to pay to join the scheme. The government is helping out by providing grants to emerging farmers to do this. The commercial farmers are glad to accept these incoming emerging farmers since they pay for it. The government is also subsidising further infrastructure development in WUAs where emerging farmers are members. Indications are that this is the real reason why commercial farmers are gladly accepting

emerging farmers. It allows them an opportunity to expand their waterworks using government money. The co-operation that is happening here is what Swatuk (2005) calls 'political co-operation' because these farmers are joining hands simply to access government money, and not because they have any cordial relationships.

The research questions can be safely answered as follows. There is no participation by emerging farmers in WUAs because they lack the capacity to do so. There is no skills transfer happening either, because the responsibility has neither been expressly given to a WUA nor is there an implementation strategy for it. There is co-operation in terms of infrastructure sharing. However, this co-operation is political as both groups of farmers intend to benefit from government grants.

5.3 Communicative Rationality

Habermas' (1981) theory of communicative rationality, on whose framework this study was based, is centred upon the realisation that mutual understanding maintains a basis of shared pre-supposition. The aim is to create a rational basis to achieve intended goals in a democratic society by enriching public discourse. It emphasises participation and learning (Wilson, 2001).

Using this model, it comes immediately clear why participation and skills transfer does not happen in WUAs. The supposed mutual understanding is taken for granted. It does not follow that simply because farmers both need water, they have a rational basis for discourse. Some need water more than others; while others want to fight to preserve the water they are allocated. Others do not have the water now, so they will not see a need to participate until they get it. At the end of the day, the social interaction is not informed by a common goal of accessing water. Rather the complicated subjective views cannot even be overcome by 'a mutual conviction for an objective goal' as Habermas (1981) proposed. Commercial and emerging farmers need other reasons to co-operate.

If they met in the same social settings like a church, social clubs or hobbies, they may have been a social capital to harness. Maybe consensus may have been easier to build because mutual trust will be more readily sought. As it stands, these two groups of farmers do not have any kind of relationship or anything in common except farming. The need to increase discourse is absent because any kind of discourse they have only happens at the negotiating table, and nowhere else thereafter.

5.4 Recommendations

Building a new institution is a political, not technical process (Swatuk, 2005). There seems to be a lot of political factors ignored in coming up with multi stakeholder WUAs. Their formation is informed more by statutory law than local arrangements. There is need to make WUAs descriptive not prescriptive. It is easier to observe local arrangements first before coming up with a blue print for a WUA. That way any co-operation in a WUA will be voluntary, not coerced, and consensus will be less difficult to achieve.

The legal status of Irrigation Boards (IBs) is at best confusing, and at worst frustrating. WUAs are said to be transformed organisations, yet IBs can still exist inside them, whether formally or informally. Long historical ties of IB members, coupled with experience in water issues, gives them an unfair advantage over other members. IBs should be disbanded completely so that everyone starts from scratch in a WUA. It will give emerging farmers equal influence and it avoids allegiances. Besides, voting by amount of land owned makes emerging farmers virtual passengers in the association. It does making business sense though, but when we want to consider issues like transformation, equity and participation, it makes imperfect sense. It is my considered opinion that a first-pass-the-post process, similar to a political ballot, be introduced.

There is need to invest in capacity building for emerging farmers. The managerial skills they need can never come from commercial farmers as it is. Skills transfer is clearly outside the scope of a WUA. If government wants to include it, they should be more pro-active in investing in the ‘glue’ that will make it ‘stick’. A partnership with the

Departments of Land and Agriculture is imperative to introduce periodic workshops to help emerging farmers. The workshops should also include communication lessons. While they are at it, it may also be advisable to have some kind of screening procedure that separates genuine people interested in farming from opportunists who are after free land from government.

There has been a suggestion that emerging farmers form their own separate WUAs. While this may sound logical, in the long run it may not be sustainable. If emerging farmers cannot be organised now, or fail to participate today, one can only imagine what will happen when they are on their own. Besides, government will have to invest a lot more in that WUA to make it work. The practical solution, given available resources, will be to let them stay in the current WUAs. At least they learn, whether by default or by design, while better ways of improving their welfare are being sought.

5.5 Further Research

There is a limited amount of literature and research on WUAs. This calls for further research in this sector, which should include the following areas:

1. The adequacy of the legislation when it comes to protecting minorities in the WUAs.

2. The possibility of incorporating Agriculture and Land Affairs Departments in the process of establishing a WUA.

3. An in-depth study on WUAs that have worked and draw lessons from their success

4. Exploring the link between land reform and water reform.

5.6 Conclusion

The concluding chapter draws together the findings of the study. The study revealed the lack of tangible participation by emerging farmers in WUAs, and the absence of skills transfer from commercial to emerging farmers. It also showed the political co-operation that happens between emerging and commercial farmers when it comes to infrastructure sharing. It is recommended that the formation of a WUA be informed by present local arrangements than prescriptive legislation. It is also strongly recommended that the confusing status of IBs be dealt with as a matter of priority. A more democratic, transformed WUA can only be possible then.

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Appendix A: List of Questions

Interviews were based on open ended questions, depending with the respondent. Here are examples of the questions asked:

Emerging Farmers

1. Where do you farm?
2. Where do you get your water?
3. Are you a paying member?
4. Tell me, where did you learn farming?
5. Can you tell me how you joined the WUA?
6. Tell me how you have benefited from you membership there.
7. What assistance have you received from government?
8. Do you have any relationship with emerging farmers?
9. Do you participate in WUA meeting?

Commercial Farmers

1. Where do you farm? Where do you get your water?
2. Tell me about your farming experience?
3. How do you feel about this new legislation that Irrigation Boards are supposed to transform into WUA?
4. Do you participate in the WUA?
5. Are there any emerging farmers participating?
6. Do you have any relationships with emerging farmers yourself?
7. Emerging farmers are expected to learn from you in the WUA, do you think they are?

Government Officials

1. Tell me, what is your definition of an emerging farmer?
2. What is the government policy on multi stakeholder WUAs?
3. Is there any particular relationship you intend to build between emerging and commercial farmers?
4. What benefits do you expect the emerging farmers to receive from these?
5. What kind of assistance do you give to emerging farmers?
6. How do you ensure participation by emerging farmers?
7. Do you have a monitoring method to ensure compliance?

Appendix B : Location of the two WUAs. **Source: DWAF**