CHAPTER 5

CURRENT SITUATION OF EXTENSION IN LIMPOPO

5.1 INTRODUCTION

The purpose of the chapter is to introduce the reader to the agricultural technicians of the province in order to get a better understanding of extension delivery. The chapter draws experience from two programmes of the Department of Agriculture, namely the Limpopo Agricultural Development Programme (LADEP) and the Broadening Agricultural Services and Extension Delivery (BASED). Both programmes are relevant because they gave substance to the baseline of extension (Manstrat, 2002) and the impact of BASED in two districts (Zwane, 2001).

5.2 BACKGROUND OF THE PROVINCE

There are two distinct farming patterns in the province. One pattern is characterized by large-scale commercial agriculture with freehold land tenure while the other is characterized by small-scale and subsistence agriculture. It is estimated that the province has a total area of 13,8 million hectares with 7,8 per cent of the total area being under dry land cropping, 1.0 per cent is under irrigation and 77, 4 per cent is natural grazing (Department of Agriculture, 1995:1). The major products that contribute to the economy are beef, maize and vegetables.

According to research (Nesmvuni, 2002:23) animal products contribute 51 percent, horticulture 31 percent, field crops 17 percent, and forestry and others 1 percent. Agricultural production in many parts of Limpopo Province is greatly limited by the abuse and deterioration of natural resources, resulting in soil erosion, declining soil fertility, veld deterioration and the depletion of water resources (Bembridge, 1988:22 and RDP, 1995:6). In one of the districts namely the Schonoord area, soil erosion is particularly serious and is being addressed by the Department of Agriculture with the assistance from a donor organization namely the Japanese International Agency for

Cooperation (JICA). The six districts of the Province are indicated in the districts orientation map, Figure 5.1.

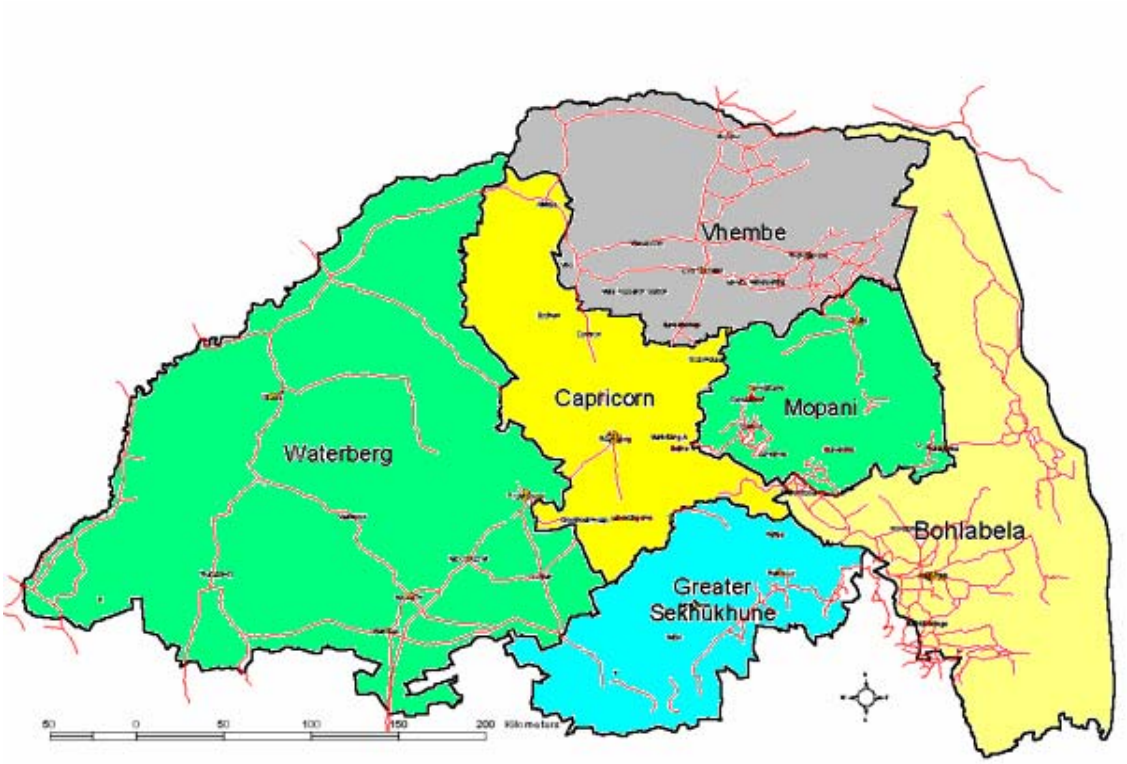

Figure 5. 1: Districts in the Limpopo Province

5.2.1 Present ranks of agricultural technicians and operational areas

The Limpopo province has 859 extension personnel who 520 of which are categorized as agricultural technicians /extension workers, 188 as animal health technicians, 92 as development technicians/Land and infrastructure, 9 as animal production technicians, 13 as state veterinarians and agricultural scientists specializing in different fields namely (5) horticulturalists, agronomy and /crop scientists (18), animal scientists (4), economists (6), soil scientists (4). The agricultural technicians play an important role in the chain of development by linking farmers with sources of knowledge.

Agricultural technicians are allocated wards to service the communities and farmers in rural areas in terms of their agricultural requirements. A ward includes a number of villages with more or less the same agro ecological characteristics especially where dry land farming is practiced. The extension to farmer ratio was never stable. Some

scholars recommended the extension to farmer ratio of 1:1000 families but this is selectively realized while it is probably too wide.

Farm families diversify their farming enterprises in order to spread the risk of crop failure which makes it even more difficult to service such a huge number of households. The ideal /workable extension to farmer ratio is influenced by the type of farming, the types of farmers and the sensitivity of the natural resources of the area. Zwane (1988) found that the highest number of successful farmers who would be serviced by a "committed to work" extension worker /agricultural technician was between 300 and 500. In the case of irrigation schemes the norm used by the then "Department of Bantu Administration" in the betterment areas of the RSA was 1:40 (Lilley, 1978).

The Department of agriculture identified areas and built housing and office accommodation for its officials in close proximity of the villages. The numbers of agricultural technicians were few in the past two decades and were deployed in areas far from their home villages and were using bicycle as means of transport. However with the improvement of modes of transport to motor vehicles more qualified agricultural technicians were hired by the Department of agriculture and the trend has been that many have requested transfers to work either in their home villages or in the neighbouring villages.

Most of the extension workers have the rank of agricultural technician. When the official is promoted he becomes a senior agricultural technician. Further promotion earns him the rank of chief agricultural technician, a principal agricultural technician or a control technician. The agricultural technician's present ranks are by definition not professionals.

The South African Society for Agricultural Extension (SASAE)'s Strategic Initiative Sub-committee (2002:1), identified the present ranks within the Department of Agriculture in South Africa as one of the major constraint because it does not really provide for a career path for professional agricultural technicians. Table 5.1 gives the situation at the time of survey.

Table 5. 1: The number of extension personnel per rank in the different districts of the Limpopo province and the number of personnel being part of the provincial sample

Districts of Limpopo	Directors	Dep. Directors	Asst. Directors	Scientist Snr. Scientist Princ.ipal	State Veterinarians	Chief Agric. Technician	supervising other	Snr. Agric. Technician	Agric. Techn.	Learner Techn.	Total
Sekhukhune	1	1	3	8	2	88	18	6	-	-	127
Mopani	1	1	5	6	-	95	21	4	-	-	132
Vembe	1	1	6	5	2	194	11	-	-	-	220
Bohlabela	1	1	4	7	2	45	25	15	-	-	99
Capricorn	1	1	8	7	4	127	25	15	-	-	188
Waterberg	1	1	4	3	3	41	4	4	-	-	61
Total	**6**	**6**	**30**	**36**	**13**	**590**	**104**	**44**	**-**	**-**	**829**

The general picture of agricultural technicians in Limpopo is not satisfactory. The vast majority of agricultural technicians (590) are at the rank of chief agricultural technician. The reason for this situation is that for the past 10 years there were no newly appointed agricultural technicians at an entry level. In addition to this that the number of specialists such as scientists and state veterinarians are inadequate, probably due to the lack of an appropriate extension strategy to address the situation.

Lastly, there is a crisis of supervision of agricultural technicians. The reason for this is that many of the agricultural technicians are now supervised by colleagues of the same rank. In the long run this will affect the moral of the extension workers. Provision needs to be made to recruit new agricultural technicians who should take over from those who will exit the government service either through death or retirement.

5.2.2 Age and work experience

Bembridge, Steyn and Williams (1983:84) found that extension officers who were less than 30 years of age were relatively inexperienced. According to research conducted in the Sekhukhune district, Manstrat (2002) found that the majority of the extension technicians were within the age bracket of 36 to 50, years. In another survey conducted within the pilot areas of BASED, the dominating age group was between 41 and 50 years and this constituted 40.5 percent of the total. The different age groups are reflected in a recent provincial sample in Table 5.2.

Table 5. 2: Age of respondents of a sample of extension personnel in Limpopo

No. of years	Frequency	Percent
<30 years	5	1.5
30-39 years	132	40.8
40-49 years	117	36.1
50-59years	51	15.7
>60 years	6	1.9
Missing	13	4.0
Total	**324**	**100.0**

Based on the overall age distribution the agricultural technicians have a greater chance to influence service delivery in the Department. The majority of agricultural technicians (40.8 percent) are in the age bracket that is still energetic. It is an age which drives individuals to achieve more in life. One should however not shy away of the fact that HIV /AIDS is also affecting the health and consequently the productivity of its victims. There is no evidence of its effect in Limpopo as yet (Last 2004:18).
Table further indicates that only 15, 7 percent of the personnel would retire within the next 10 years. The Department should therefore make timeous arrangements to replace these personnel.

Age plays an important role in extension work. Bembridge's *et al* (1983) finds that effectiveness in extension is related to age because of the associated experience. It is assumed that the younger the agricultural technician the lesser his/her experience. Five years of experience is considered as inexperienced since the first two years of the

agricultural technician's time in a new place is taken up acquainting him/herself with the working environment.

Work experience gathered over many years may be lost when officials retire. The writer recommends the introduction of programmes such as mentorship that will ensure that experience is not lost. The different years of experience are shown in Table 5.3.

Table 5. 3 Number of years in service as agricultural technicians

Number of years	Frequency	Percent
>5 years	5	1.5
5-10 years	22	6.8
11-15 years	110	34.1
16-20 years	91	28.2
21-25 years	40	12.4
>25 years	45	13.9
Missing value	10	3.1
Total	**324**	**100.0**

The extension service of Limpopo has well experienced personnel who know what should be done in their area of work. Although 34.1 percent of the respondents fall within the 11 to 15 years experience group. Experience alone is meaningless unless it yields positive tangible evidence of achievements.

5.2.3 Gender distribution

Van Den Ban and Hawkins,(1990:270-271) found that considerable attention had in recent years been focussed on the large proportion of agricultural work done by women, whereas only a small proportion of agricultural technicians in fact are women. The same view is expressed by Swanson, *et al*, (1983:16) who acknowledge that a significant proportion of small farmers and farm workers in the Third World are women who make a major contribution to world food production while seldom

benefiting from agricultural extension services. Table 5.4 presents the picture within the Limpopo sampling area.

Table 5. 4: Gender distribution of the provincial sample

Gender	Frequency	Percentage
Male	257	79.3
Female	59	18.2
Missing value	8	2.5
Total	**324**	**100.0**

The overall situation of Limpopo reflects a biased picture concerning gender distribution only 18.2 percent being women. In two separate surveys of BASED and the Limpopo Agricultural and Rural Development Programme (LADEP) similar shortcomings were identified. These surveys showed that as many as 77.0 percent of the BASED samples were male while males also dominated the LADEP sample (Manstrat, 2002).

The gender imbalance of technicians within the Department of Agriculture can make it difficult to reach important target groups. If more change in women farmer's behaviour is to be achieved more female agricultural technicians are required. A justified question is whether the large percentage of male technicians is effective in reaching out to women farmers who, according to Progress Report (1995) constitute 80 percent in the province.

It is often said that cultural norms are barriers to female participation in projects initiated by males but there is no concrete evidence to prove this point, it is the writer's view that there is a need to investigate the role culture plays as a barrier to participation in development. Based on these findings, it is recommended that the deployment of a relatively small proportion of women agricultural technicians in the Department of Agriculture need to be reconsidered to ensure that agricultural extension does not by-pass the women farmers.

5.2.4 Qualifications of agricultural technicians

The basic training of an agricultural technician according to Schwas and Allo (1982:3) must include technical knowledge, a sound knowledge of people and rural communities as well as agricultural processes and skills to communicate effectively. Most of the agricultural technicians in the BASED sample had enjoyed twelve years of formal education while the majority of the agricultural technicians from the main sample had diploma qualifications of less than twelve years. These are older extension workers who have a standard 8 plus diploma. The findings are presented in Table 5.5.

Table 5. 5: Number of years spent in junior and senior secondary school

Number of years	Frequency	Percentage
Std 8	33	10.2
Std 9	22	6.8
Std 10	261	80.6
Missing value	8	2.4
Total	**324**	**100.0**

The picture that emerges from the table is that agricultural technicians in Limpopo have not spent the sufficient number of years in formal education. According to Table 5.5 10.2 percent of technicians have standard 8 and diploma qualification. It would appear that these agricultural technicians do not have ambitions to further their level of education. One negative aspect that becomes evident as a consequence is that, if they are in supervisory positions they do not serve as role models for their subordinates to aspire for more in life. There is a significant potential of agricultural technicians who should enrol for higher qualifications

In a survey of agricultural technician's knowledge (Bembridge *et al,* 1983:94)finds that their knowledge of applied technology was insufficient and that few agricultural technicians could be considered to have sufficient subject matter and extension knowledge to be able to perform their tasks effectively. The existing knowledge, skills and experience of agricultural technicians in the Department of Agriculture of the

Limpopo Province was analyzed and was found wanting (Manstrat, 2002). A more detailed qualification record is presented as Table 5.6

Table 5. 6: Frequency distribution of agricultural technicians according to their extension function and their highest tertiary qualification (N=295)

Function	Certificate or Diploma		Advanced Dipl. BTech or B-degree		BSc, Hons. BSc(Hons)		Masters, MSc, PhD	
	N	%	N	%	N	%	N	%
Agricultural. Technicians	4	100						
Extension Workers	139	87.4	19	11.9	1	0.6		
Extension workers and Supervisors	60	89.6	6	9			1	1.5
Supervisors and Managers	24	85.7	2	7.1	2	7.1		
Support Services	9	50	5	27.8	4	22.2		
Other	12	63.2	4	21.1	2	10.5	1	5.3
Total[16]	**248**	**84.0**	**36**	**12.2**	**9**	**3.1**	**2**	**0.7**

The impression gained from the date of Table 5.6 is that agricultural technicians possess the minimum entry qualifications required for the job. The majority of 284 (84,0 percent) agricultural technicians are in possession of a certificate or a diploma in agriculture. The number of agricultural technicians trained at more scientifically or post graduate level, which is, BSc, Masters and PhD qualification are few(3.8percent).

This situation presents a constraint when building a team of subject matter specialists and competent agricultural technicians. The Department of Agriculture faces the challenge to train a cadre of agricultural technicians at post graduate level. As it is the question concerning the status of agricultural technician's practical knowledge remains unanswered.

[16] *Not all 324 respondents participated (i.e. 29 are unaccounted*)

The Department has identified the need for developing its human resources. Bursaries have been advertised to attract scarce resources in the fields of entomology, wine making, veterinary and agricultural engineering and ordinary agricultural technicians. The Member of the Executive Council (MEC) for the Department of Agriculture has initiated mentorship programmes with private farming partners dealing with poultry and crops to re- train agricultural technicians. During the 2002/2003 budget speech he announced 70 scholarships for agricultural technicians.

Unfortunately only a small number of agricultural technicians utilized the opportunity due to logistical problems. Ten officials were sent to Mike's Chicken Farm where they received training in broiler production for 9 weeks. Six agricultural technicians were sent to Buhle Farmers Academy, for vegetable production training for a period of 10 months. Four agricultural technicians attended courses in rural development and cooperatives in Japan. According to Schwass and Allo (1982:9) the educational requirements of agricultural technicians is not finite, being a continuing process which should last for the duration of their careers. It is important that regular training courses be organized, to provide agricultural technicians with up-to-date information and to offer them the opportunity to discuss mutual problems.

There are no wide spread structured programmes for in-service training in the Department of Agriculture. Some form of in-service training takes place in the districts targeting agricultural technicians participating in the donor supported programmes. These programmes include a donor ship from Finland, the GTZ and the local Progress Milling Community Development Programme.

During May 2004, 26 agricultural technicians visited two international research institutes namely the International Center for Research Institute for Semi-Arid and Tropical areas (ICRISAT) and Centre for Maize (CMMYT) in Zimbabwe and the Institute Centre for Research on Agro-forest (ICRAF) in Zambia. A middle management training programme developed by the Management Support Group (MSG) sponsored by the Department of International Affairs (DFID) is targeting middle managers. The support from the office of the MEC is appreciated in this regard.

5.2.5 Marital status

The marital status of agricultural technicians has no influence in the effectiveness of extension (Bembridge, *et al,* 1993:86). Of the respondents in the BASED pilot districts 75, 9 percent of the respondents were married (Considering the farming fraternity Rossouw (1989) found that married farmers tended to keep more goats and cattle than unmarried farmers).

The difference between agricultural technicians and farmers might be insignificant because responsibility tends follow similar patterns irrespective of whether one is a farmer or an agricultural technician. The writer observed that married agricultural technicians in the Department of Agriculture tended to show higher levels of commitment than their unmarried counterparts.

5.2.6 Merit assessment

Düvel (2002: 22) noted that formal not an assurance of competence or of an extension success. Should this be the case then the fault should possibly be sought in the process of assessments and not so much in the principle. Officials are irrespective of their of their functions using the same assessment instrument. A scholar of Bembridge, *et al* (1983:246) suggests a profoma to specifically evaluate the agricultural technicians. Unfortunately the proposal was not implemented.

The suggested profoma has practical aspects to be noted when evaluating and is specifically targeted at agricultural technicians as the nature of their work differs from other civil servants. It includes aspects such as technical competence, extension competence, human relations, knowledge of communities, area land use plan, farmer's records, office management, extension programme work plan, and organization of extension work programmes, leadership characteristics and innovativeness.

According to Düvel (2002) however the merit assessment for the Department of Agriculture in the Limpopo Province was assessed to be satisfactory. The situation of Limpopo is presented in Figure 5.2.

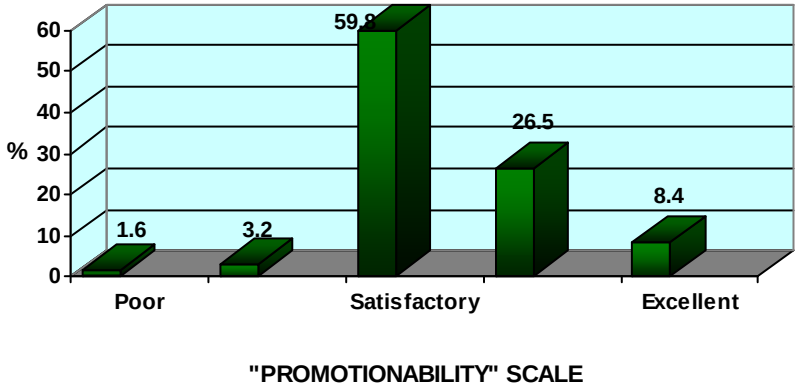

Figure 5. 2: The distribution of frontline extension personnel according to their "promotionability" (N=1199)

The picture that emerges from Figure 5.2 is that the level of promotion ability of agricultural technicians is satisfactory in the Department of Agriculture of Limpopo. The majority of respondents rated 59.8 percent were rated as satisfactory. The scale used is the customary one which denotes the different categories as follows namely Poor (1), not satisfactory (2), Satisfactory (3) Exceptionally good (4), and Excellent (5). The figures need to be challenged, however as it is suspected that supervisors tended to award good marks to their subordinates because of the bias inherent in the approach of the previous merit system.

Some supervisors used to see the system as another way of scooping government money without being honest with themselves in their assessment. This happened in "central merits marking sessions" where supervisors would award marks without any supporting evidence of achievement. In such cases the central merit assessment marking committee would send the report back to supervisors to re-work it and to attach supporting documents.

The performance management system was introduced to the Province in the 1st of April 2002. All categories of workers signed performance agreements with their

supervisors. Civil servants with a post grading below level 13 were expected to sign memoranda of understanding while those above grade 12 were expected to sign performance agreements. The difference between the two performance instruments (performance agreements and memoranda of understanding) is minimal. For instance the performance agreement is expected to include the four perspectives of service delivery (learning and innovation, finance and organizational processes) whereas the memorandum of understanding excludes the four perspectives with the exception of service delivery.

A close review of the practice of the new performance management system suggests that it builds team work because of its consultative processes between the supervisors and the supervisees. It remedies poor performance because it is developmental rather than punitive and it discourages rewards to non- performers which in the past was difficult to achieve. The policy for assessing performance before 2001 rewarded high performers, moving into either second or third salary notches, the evaluation not being objective because it was stained by the supervisor's relationship with his or her subordinate.

It is recommended that a comprehensive training programme aimed at equipping supervisors should be rolled- out to influence the change of mindset of the supervisors.

5.3 EXTENSION PROGRAMMES

According to Van Den Ban and Hawkins, (1990), the main aim of an extension programme is seen as the initiation of change. However many extension services do not work with systematically planned extension programme because they spent most of their time reacting to farmers problems on an ad hoc basis. The emphasis of the Department of Agriculture is to encourage all extension technicians to implement its strategic plan, which prioritises Agriculture and Rural Development Corporation (ARDC) projects, Land reform, Poverty alleviation, Livestock Production and Animal Health, and Human Resource Development. The data of Table 5.7 renders some insight into the practical day to day tasks performed by technicians in implementing the official strategic plan.

Table 5. 7: The mean percentage time spent by frontline extension workers in the various districts on different activities

Activities	Sekhukhune	Mopani	Vhembe	Bohlabela	Capricorn	Waterberg	Total
Registered Projects	17.7	13.1	21.9	19.3	12.8	17.8	16.7
Other proactive extension.	16.0	14.6	13.7	15.9	13.1	13.0	14.5
Reactive extension	13.3	15.2	12.6	12.0	12.2	13.7	12.8
Regulatory work	11.8	14.8	13.0	9.6	13.0	12.9	12.3
Administration	9.8	11.1	10.5	8.7	8.8	12.7	9.6
Management	10.4	42.1	10.6	11.3	9.3	8.1	14.3
Training and Self-develop.	10.1	13.8	11.4	12.7	9.0	9.3	10.9
Representing Dept.	7.8	10.8	9.0	11.5	8.7	8.5	9.3
Other	8.8	15.1	3.7	8.5	8.6	16	9.2
Total							

The emerging picture from Table 5.7 is that agricultural technicians spent most of their time on registered projects, the leading district being Vembe followed closely by Waterberg. Registered projects include focused ones such as poverty alleviation, fish production, milk production, egg production and bee keeping. The least favoured activities are the unspecified ones and having to represent the Department, followed by administrative activities.

Agricultural technicians are expected to use Participatory Rural Appraisal (PRA) or Participatory Extension Approaches (PEA)/ Participatory Development Approaches (PDA). The different pillars of PEA are presented in Figure 5.3.

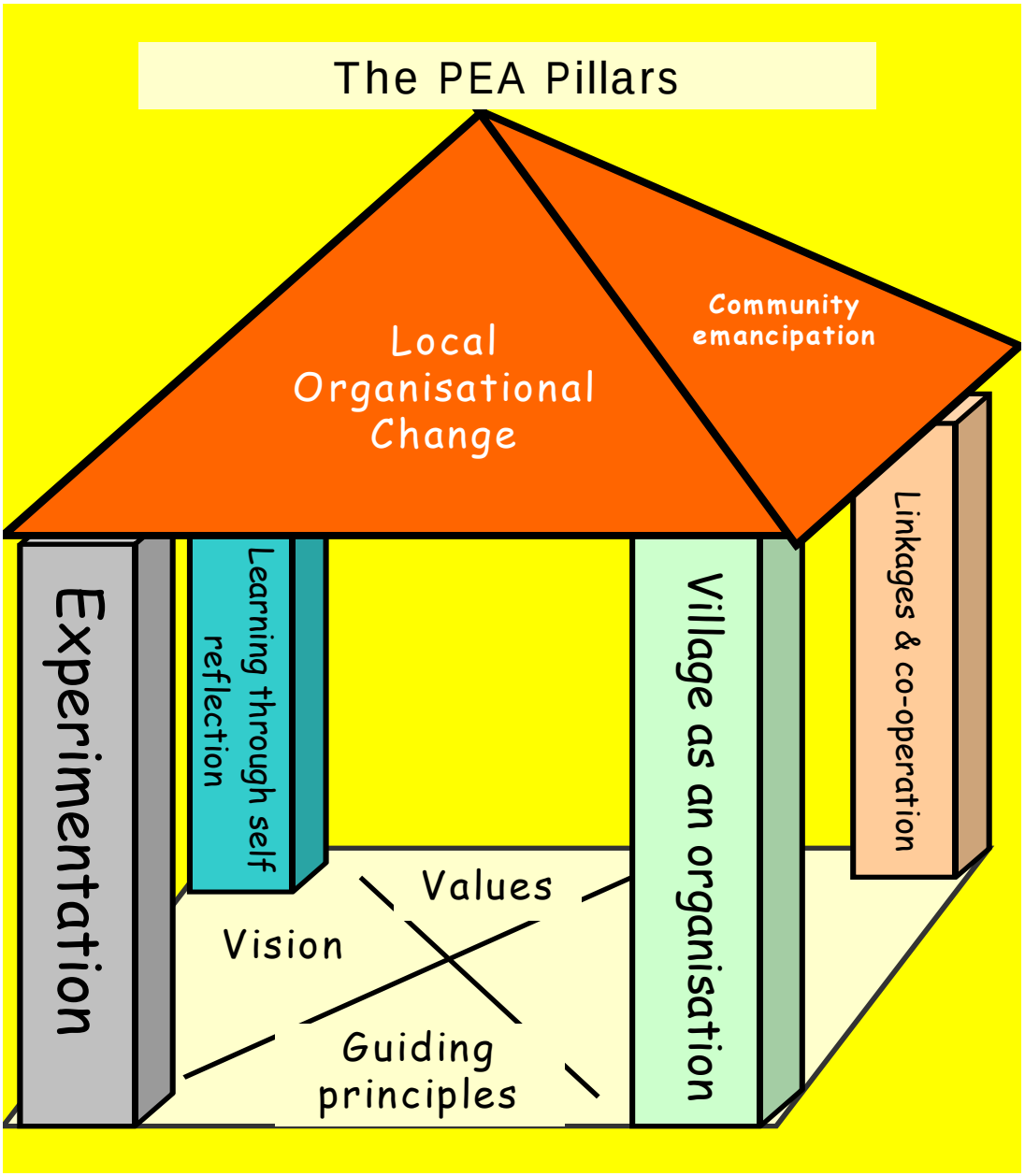

Figure 5. 3: Pillars of Participatory Extension Approaches (PEA)

The graphic presentation is an attempt to the meaning of the pillars of PEA. The emerging picture shows a poor understanding of the implementation of PEA. The majority 54,5 percent of the agricultural technicians in the two pilot districts of Vembe and Capricorn lacked the critical knowledge of PEA while more than 30 percent had no idea at all about the pillars of PEA. Sixteen of the respondents failed to respond.

Some of the lessons developed by BASED include the following:

- The PEA is one of the approaches that can be adapted to be used by non agricultural partners such as local government structures,

- Small and medium enterprise bodies can use PEA to equip their clients for development.

- The acronym of PEA can be changed from PEA to Participatory Development Approach (PDA) transcending the boundary of extension. One community of Ga-Mogano has for example used the concept of PDA to mobilize the whole village to lobby for electricity which it was scheduled for 15 years ahead of time.

- The methods of social mobilization have proved that it can be done concurrently with other forms of mobilization such as experimenting and developing local organizational development.

- Using the village approach is more user- friendly because development is channelled and it is managed without any confusion of who does what and under whose supervision.

5.3.1 Typical projects focus in the districts

Agriculture is practiced over a wide variety of farming systems in the province, but the size of production systems differ per district. The time spent by agricultural technicians on different audience categories is presented in Table 5.8.

Table 5. 8: The mean percentage time spent on different audience categories by respondents in the different districts of Limpopo Province

Provinces	Large scale commercial	Small scale commercial	Subsistence farmers	New farmers (LRAD)	Urban agriculture	Schools	Farm labourers
Sekhukhune	13.3	21.6	27.9	15.2	9.4	11.8	10.4
Mopani	11.6	18.7	31.9	14.0	11.3	14.3	13.6
Vembe	19.0	21.1	35.4	18.0	12.1	10.8	10.2
Bohlabela	11.1	26.3	28.9	15.5	6.7	9.4	11.0
Capricorn	13.4	19.8	23.9	15.7	10.8	10.2	10.6
Waterberg	10.5	19.3	27.9	18.6	11.2	11.5	8.2
Total	**13.3**	**21.4**	**28.2**	**15.8**	**10.1**	**11.0**	**10.8**

The impression gained from Table 5.8 is that agricultural technicians spent most of their time on subsistence farmers, the highest rating out of the 7 categories being **28.2** percent. The reason for the focus on subsistence farmers is because the majority of farmers are subsistence engaged in some of the projects that cannot be described as profitable. Participants mostly diversify on a small scale or on a subsistence basis. Since subsistence farming depend mainly on good rains, it means that when rains fail, the farmers have to rely on other sources of livelihoods such as pension remittances and income exported by family members and relatives from rich provinces such as Gauteng.

The second most favoured category is small scale commercial. The reason for this focus is because some districts have different sizes of irrigation schemes with farmers who have ambitions to produce for the local or the national markets.
Agricultural technicians will need to consider allocating time to such activities where an impact can easily be recognized. This should be in line with the new Departmental focus areas of value chain analysis, commodity approach, project approach and the municipal focus.

5.3.2 Developmental constraints for farmers

Manstrat (2002) identified a number of non-agricultural constraints and resource requirements that have a direct or indirect influence on the economic viability and subsequent sustainability of agricultural projects in the Province. These constraints include road infrastructure, access to markets and water and electricity charges.

5.4 PRINCIPLES OF POLICY AND ITS IMPLICATION IN AGRICULTURAL DEVELOPMENT

5.4.1 Introduction

The problems of establishing or maintaining an effective agricultural extension service can be traced back to the lack of a realistic policy or an unstable framework for charting the mission of an extension system (Contado 1997:107). The principal objectives of extension throughout the world do not differ and this is attested by many authors. It is recognized as the improvement of the well being of the farming communities, with the emphasis on poverty alleviation, increased farm income, self reliance and projects or programme ownership (Adams, 1982:4; CAADP 2006; Contado, 1997:107, Hayward, 1989 and Weaving, 1975).

The main aim of agricultural development is to have an improvement in the livelihoods of rural people and to see positive on-going change in their situation. The focus is on people and on getting these same people involved in their own development, enhancing their problem-solving capacity and building self-reliance. Extensionists have to facilitate the process "doing development *with* people and not for them. In order for the organization to achieve this, it is expected that strategies and programmes should be designed within an appropriate policy environment which support this process, building self-reliance and not creating dependency (Ehret, 1997).

It is therefore opportune to focus on what policy is the principles of policy formulation and the implications of policy in agricultural development. There are different ways to look at policy. According to Willieboat (2007:53) there are different kinds of policies.

5.4.2 What is a policy?

There is no simple answer to this question. It is for this reason that many people claim to have little or no understanding of policy. From a practical point of view, a policy can be described as a set of rules that give direction, a working tool or a guideline (F.C. Business Consulting, 2007:51). In other words a policy is a broad concept that embodies several different dimensions. The challenge is to articulate the meaning of this term in a comprehensive and comprehensive way. There are two broad categories of policies namely substantive and administrative.

The substantive kind of policy includes legislation and practices. Examples of substantive policies are income security, employment initiative and social exclusion. The second kind of policy focuses upon administrative procedures. These involve (among others) the collection of statistical information and the evaluation of complex issues.

Substantive and administrative policy can be further classified as vertical or horizontal policy. The former refers to policy that is developed within the organization that has the responsibility for its implementation. Horizontal policy making is developed by two or more organizations each of which have the ability or mandate to deal with a dimension of a given situation.

It is noted that governments are focusing their efforts upon horizontal policy–making in recognition of the fact that many of the objectives they seek to achieve are complex and relate to the mandates of two or more departments, jurisdictions or non-governmental organizations. Areas of common interest include for example climate change (Smith 2003) as cited by Willieboat (2007:53).

Policy can also be categorized as reactive or proactive. Reactive policy emerges in response to a concern or crisis that must be addressed such as health emergencies or environmental disasters. Proactive policies by contrast are introduced and pursued through deliberate choice. What is common to both is that they need to be based on tested principles.

Experience in developing policies in general one has to follow a number of steps. Willieboat (2007:53) identified the following steps namely defining the issue or problem, gathering the necessary information on the issue, appointing a committee in charge of the development process, discussing and debating at the management level, holding the first reading, publishing the draft for public comments, making revisions, holding the second reading, adopting the policy, distributing the policy to the public, policy evaluation and revision or modification.

5.4.3 Principles of policy formulation in extension

There is no standard formula to be used in formulating agricultural extension policies. Formulating and enacting a sound comprehensive and useful extension policy is a difficult undertaking (Contado, 1997:107). However a policy should be specific to a situation and the fact that public policy should seek to achieve a desired goal that is considered to be in the best interest of all members of society. This view has been expressed by some authors (Hayward, 1989, Willieboet, 2007:54).

When examining extension practices for effectiveness, Lawrence and Lorsch (1967) cited by Hayward (1989:139) suggest six differentiation dimensions of organizations; namely goal orientation, time, interpersonal issues and structure. Goal orientation should be seen as the first principle and there is reasonable agreement with other authors concerning this point (Contado, 1997). An attempt is made to identify what should be covered in formulating extension policy (Contado, 1997:111) and these are discussed hereunder.

- **Goal orientation or extension mission**

Goal orientation looks at the particular objectives of an extension system. Clarity of goals is fundamental in designing effective systems while one observes that the policy makers, budget directors and extension planners rarely start by establishing goals. On the contrary to this observation it is accepted that that most governments do have master plans for extension with detailed goals of extension but they do not have a strategy for their agricultural sector as a whole (Ameur, 1994:10).

- **Extension approach and functions**

Policy should address the question of which extension system should be used. Most extension systems in developing countries give primary attention to technology transfer. Following the adoption of Participatory Extension Approaches (PEA) in Limpopo, which is a multi-prong, a single extension approach may not suffice to service its clients (Contado1997).

- **Subject matter coverage of extension**

Broadly speaking, the subject matter of extension is implied in the mission statement and even in the title of the extension service. The extent to which subject matter specialists would be deployed should be clearly defined.

- **Geographical coverage**

Geographical coverage can be an important policy issue because of both political and cost implications. Extension personnel will tend to be more responsible to those levels of government that provide extension funding. Some economists believe that agricultural extension should be concentrated to those agricultural areas that are well endowed in terms of both human and natural resources.

- **Clientele or target beneficiaries**

A common criticism of extension services in developing countries is their neglect of the vast number of small-scale farmers in favour of fewer numbers of large farmers. This is a policy issue because of its implication within the mission and goals of extension. The inclusion of women and rural youth is generally recognized in terms of their numbers and contribution to farming.

- **Organizational issues**

The extension organization embodies different aspects of an extension system and it provides the management framework for the extension service. This is a policy issue because it affects the scope, magnitude and structure of the extension system (Contado, 1997).

- **Extension staffing issues**

Policy should address the question of the type of qualifications and the number of staff required as well as the ratio of field extension personnel to the number of farmers, households, or other target group, and how they should be deployed (Contado, 1997).

- **Extension funding**

The most difficult and challenging policy issue facing extension today is to secure a stable source of funding. Studies carried out in developing countries indicate that the returns to extension expenditures are high. Policy makers should examine this issue carefully in deciding what level of public funding is necessary to support extension in relation to the needs of farmers in the country (Contado, 1997).

- **Stability**

A good extension policy should promote extension system stability, yet allow sufficient flexibility to reflect the dynamic nature of the agricultural sector. Extension should not be rigid but rather be responsive to all major groups of farm people and sufficiently inclusive to all public, private and Non-Governmental organizations to contribute fully to the developmental goals (Swanson, 1990).

5.4.4 Implication for the policy in Limpopo

Sustained agricultural growth is crucial for the reduction of hunger and poverty across in South Africa and the Continent of Africa (in line with Millennium Development Goals). The African Union's New Partnerships for African Development (AU-NEPAD) has issued a Comprehensive African Agriculture Development Programme (CAADP) which describes African leaders' collective vision for how this can be achieved. The nonexistent of an extension policy might work negatively towards the ambitious goal sets at 6% growth per annum for the sector. The fact that the African countries including RSA should honour the millennium goals, suggest that appropriate extension policies should be developed.

People or farmers should be assisted through appropriate policy instrument to change their attitude for positive alignment and not just expect government to come and do everything for them. Although there are times when agricultural development initiatives such as projects and programmes are designed from the top these can preferably be characterized as relief rather than development. The Skills Development Act of 1997 should incorporate information to the extension policy.

Rural people have problems to be overcome and opportunities for improvement have to be created learning to do things differently and making a change for the better. According to Hayward (1989:139) there can be no one system of extension suited to all conditions. The variation in agro-ecological condition, socio-ecological environments and administrative structures is such that one system cannot be expected to suit all conditions.

Following this line of argument one can therefore conclude that policies too can not be formulated to suit all situations. To be successful, policies must be formulated to fit a particular situation. Policy formulation knowledge can be drawn from economic and management sciences and be applied to the science of extension.

One of the challenges faced by the Limpopo Department of agriculture is that no policy has been developed for extension per se while many policies have been developed on issues such as the Rehabilitation of Small Scale Irrigation Schemes (RESIS), the mechanization revolving credit scheme (MERECAS), Agri-BEE, Internet and use of 3-G, HIV /Aids policy and others (Department of Agriculture, 2007).

Since Limpopo has adopted the commodity approach, the value chain mapping and analysis should be part of the extension policy using the support package which includes business planning, access to credit, farm visits & farming advice/extension. One should however also consider the incorporation of the following critical factors for success for interventions namely management support, training in extension, production management, technical aspects, quality production, marketing, business planning and financial management.

Since there is no single way of organizing extension (Hayward, 1989 and Duvel, 2002) it can be concluded that extension policy should remain flexible and dynamic. The next section addresses the extension initiatives that were done prior to the national extension survey.

5.5 ORGANIZATIONAL CHALLENGES

Manstrat (2002) found that a number of non-agricultural constraints and resource requirements exist that have either a direct or indirect influence on the ability of agricultural technicians to provide an effective and efficient service to farmers in the Province. The most important constraints experienced by agricultural technicians include the lack of transport (this constraint having a direct influence on their ability to reach farmers on a regular basis as well as during important events such as farmers days and training events) and little or no access to sources of agricultural information especially those who operate in the remote areas of the province.

The recent changes in the Departmental organogram (in July 2006), where extension has been shifted from head office and the district to the municipality of agriculture is not a favoured option. Most extensionists feel neglected and are demoralized by this approach. Their perceived lack of linkage with the leadership is to some extent interpreted as a reason for concern. Other challenges relate to the accessibility of agricultural information.

Although most agricultural technicians are aware of the large amount of information available on the internet, they do not have access to internet facilities causing constraints not only in terms of access to information, but also in terms of communication (i.e. e-mail). There are a number of other Government Departments in the province (and the Districts) involved in the provision or funding for agricultural development (such as Social Development under its Poverty Alleviation Scheme).

These Departments initiated poorly planned projects in the Districts and agricultural technicians have found it extremely difficult to rectify consequential problems.
The Integrated Development Programmes (IDPs) are not well coordinated and some departments do not attend the centrally coordinated meetings of IDPs.

5.6 CONCLUSION AND RECOMMENDATIONS

The outstanding findings of this chapter among others include the following:

- Agricultural extension is often criticized for lack of quick results where it operates. This may manifest itself by failure of agricultural programmes. There are underlying causes of failure. A study has shown a that lack of efficient government services to provide necessary support is partly to blame (Van den Ban and Hawkins,1990:250). Other reasons may include the way in which extension institutions are is organized and managed.

  Based on the above mentioned findings the following policy guidelines are suggested:

- The supporting institutions that train agricultural technicians should be both farmer centred and be responding to the professional needs of the agricultural technicians. Refresher courses for agricultural technicians offered by the Farmer Centre for Excellence, formerly known as the Colleges of Agriculture should be encouraged in the Department.

  This should help to bridge the gap of the serious lack of knowledge and skills that exist amongst the agricultural technicians in terms of economic factors (farm planning, financial planning, economic viability and marketing). Leadership in extension should be encouraged by appointing personnel qualified in agricultural extension.

- The diverse farming system of agriculture in the province presents a challenge to the extension technicians in terms of the transfer of knowledge and skills. Systematic and specialized training is recommended.

- Large numbers of people are involved in projects that should provide higher cash turnovers over the short term (hydroponics, community gardens and poultry), but

these projects can hardly be described as profitable, mostly due to the number of people that have to earn an income from these smaller projects. It is suggested that norms based on profitability be developed for each type of project.

- The environment for extension is not favourable. It keeps on changing and leadership needs to keep an eye on it. Agricultural technicians are expected to perform functions from widely diverse agricultural systems and therefore they need support in terms of equipment and facilities.

- The Department of agriculture in Limpopo has adopted PEA as one of its interventions to respond to the needs of small scale farmers. PEA operates under a programme called Broadening Agricultural Services and Extension Delivery (BASED). A system to mainstream the PEA should be adopted which should assist agricultural technicians to adapt to its practices. PEA should be monitored through a reporting format designed for this purpose.

- One of the challenges identified is market access. Agricultural technicians are expected to assist the farmers to produce while markets are absent. It is suggested that partnerships be developed with institutions that have strong links with markets (such as Progress Milling).

CHAPTER 6

EXTENSION PERFORMANCE AND EFFICIENCY

6.1 INTRODUCTION

Extension services in developing countries are concerned with delivering appropriate extension services. Locally the agricultural extension service is the main instrument used by the Department of Agriculture to achieve its goals. Public extension services in particular, face a number of challenges such as ensuring that agricultural technicians offer efficient and effective services to their clients. If extension systems are to meet the accountability expectations it is important that their performance is such that it justifies the investment of public funds in extension. For this reason their performance is important and forms the focus of this chapter. The search for more appropriate or effective approaches is only meaningful against the background of the current efficiency situation.

6.2 THE CONCEPT OF EXTENSION

Extension is a term which is open to a variety of interpretations and this is evidenced by a number of scholars who attempted to define the concept (Röling, 1988:36; Oakley and Garforth, 1985:21; Swanson and Claar, 1984; Bembridge, 1990:11; Van den Ban and Hawkins, 1990:13; Williams, 1968:8; Rivera, 1989:94). This leads to the conclusion that there is no single definition which is universally accepted or which is applicable to all situations (Oakley and Garforth, 1985:9). A likely reason for the widespread opinion is that extension is influenced by culture, values, beliefs and practices.

Respondents were asked to make an assessment on a scale representing on the one extreme (1) extension as a form of education being primarily pro-active in nature and focusing on future problems that clients might encounter, and on the other extreme (15) an understanding of extension that is of an advice-giving nature, responsive to

the clients' current problems and consequently of a reactive nature of the type of extension practised in their areas. The responses are presented in Table 6.1.

Table 6. 1: The current understanding of the concept of extension as indicated on a 15-point scale continuum extending from pro-active educational (scale point = 1) to re-active advice giving (scale point = 15)

Districts	Mean lowest scale point	Mean highest scale point
Sekhukhune	3.61	10.40
Mopani	4.46	10.46
Vembe	4.21	11.58
Bohlabela	4.02	9.31
Capricorn	4.47	10.47
Waterberg	5.07	10.07
Total	**4.30**	**10.38**

The overall impression gained in the above Table 6.1 is that there is no support for the unidimensional understanding of the concept within the continuum. It means that the rating does not settle for a fully pro-active education or re-active advice. When comparing the districts regarding high and low mean, the differences are limited. As far as the educational dimension is concerned, Waterberg and Sekhukhune represent an extreme situation.

The possible reason for Waterberg's influence for the understanding of the concept is the commercial exposure of some agricultural technicians. One expects that in the two pilot districts, namely Capricorn and Vhembe, the concept of extension would be inclined to be more education because of the nature of extension approach they promote within the BASED programme. Unfortunately this was not the case.

6.3 AUDIENCE FOCUS

According to the White Paper of Agriculture (1995:4) a farmer, irrespective of his/her race, gender or scale of production, is a land user who engages productively in

agriculture, either on a full-time or on a part time basis and regardless of whether agriculture forms the principal source of income or not. The new political dispensation in the country has led to an increased focus on the subsistence and small-scale farmers. The respondents were asked to indicate their current emphasis or focus from three alternatives namely primarily small-scale farmers, primarily large-scale farmers and equally large and small-scale farmers. Their responses are summarised in Figure 6.1.

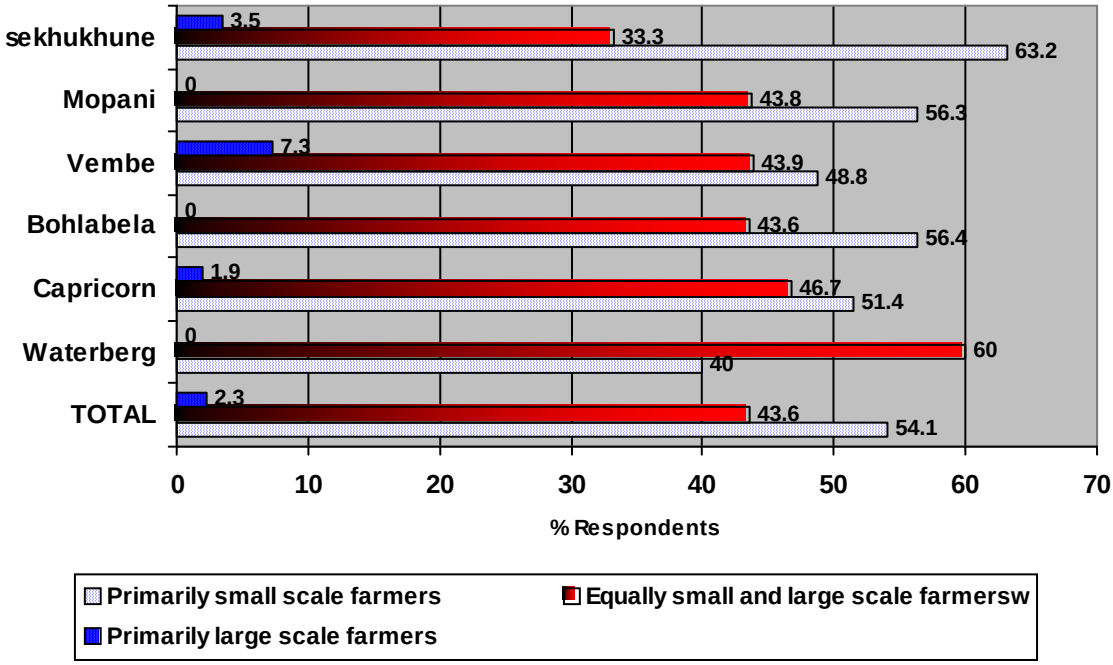

Figure 6. 1: Percentage distribution of respondents according to their focus on small or large-scale farmers

The picture that emerges from Figure 6.1 shows that the emphasis of the Limpopo Province is currently on small- scale farming. For example, five districts out of six focus primarily on small-scale farmers. The sixth district namely, Waterberg, focuses equally on small and large scale farmers. The reason could be attributed to the dominance of commercial farming in that district with relatively small pockets of communal land, such as the former "Mokerong district of Lebowa"

Another possible explanation for the equally small and large scale farmers' focus could be a misunderstanding among agricultural technicians of the term "commercial" farming. The term might have been interpreted to mean the emerging farmers because

Waterberg is one of the districts that were first piloted with the leasing of state land to 11 livestock farmers in 1997. It can be concluded that if the definition of a farmer in Limpopo means anyone who tills the land or keeps few chickens or heads of livestock, the implications would constitute an enormous challenge for policy and service delivery.

In a follow-up question aimed at gaining more insight into the audience focus the Agricultural technicians were asked to indicate the time spent on different types of clients. Table 6.2 gives a detailed overview of the responses.

Table 6. 2: The mean percentage time spent on different audience categories by respondents in the different provinces of South Africa (N=1199)

Provinces	Large scale commercial	Small scale commercial	Subsistence farmers	New farmers (LRAD)	Urban agriculture	Schools	Farm labourers
Sekhukhune	13.3	21.6	27.9	15.2	9.4	11.8	10.4
Mopani	11.6	18.7	31.9	14.0	11.3	14.3	13.6
Vembe	19.0	21.1	35.4	18.0	12.1	10.8	10.2
Bohlabela	11.1	26.3	28.9	15.5	6.7	9.4	11.0
Capricorn	13.4	19.8	23.9	15.7	10.8	10.2	10.6
Waterberg	10.5	19.3	27.9	18.6	11.2	11.5	8.2
Total	**13.3**	**21.4**	**28.2**	**15.8**	**10.1**	**11.0**	**10.8**

The overall focus of the agricultural technicians is on the small scale farmers. The majority of respondents spent 65.4 percent of their time on small scale commercial, subsistence and LRAD beneficiaries. The accuracy of the data would be questioned as the level of training of farm labourers is the level of responsibility of the employers is not above reproach.

As far as urban agriculture is concerned, the writer has no knowledge of any place in Limpopo where urban agriculture is practised. In Waterberg district the Department of

Agriculture promotes school garden competitions which started four years ago, but cannot be regarded as urban agriculture.

6.4 EXTENSION EFFICIENCY

The most meaningful criterion of performance or success is the input-output ratio because it provides an indication as to whether the investment in extension is worthwhile. An acceptable return and an estimated average over many different countries are, according to Düvel (2002:15) R130 for every R100 invested. Agricultural technicians were asked to assess the extension efficiency expressed as a return on R100 invested. The response is summarised in Table 6.3.

Table 6. 3: An estimation of the extension efficiency of the Department of Agriculture and NGO's by respondents in the different districts and expressed as a return on R100 invested

Institution/Client Group	Sekhukhune	Mopani	Vembe	Behlabela	Capricorn	Waterberg	Total
Dept. of Agriculture:							
Own area	63	109	91	90	75	57	80
Own Province	81	125	106	97	77	46	89
S.A. – Small scale subsistence	51	119	92	80	66	49	74
S.A. – Small scale commercial	45	112	97	79	64	47	72
S.A. – Large scale commercial	39	140	111	87	73	56	81
NGO's:							
Small scale subsistence	46	108	71	70	52	61	63
Small scale commercial	40	121	76	74	53	55	65
Large scale commercial	35	138	87	87	61	54	73

The picture that emerges reflects an inefficient performance of the Department of Agriculture in terms of investment. For example the efficiency of extension in the

districts is judged well below a return of R130 for every R100 invested in extension with an exception of large scale commercial farming in Mopani. Extension efficiency by the NGO's is perceived to be even lower. One of the possible reasons for the poor performance could be lack of reliable data because of the absence of empirical data. Assessments were based on subjective estimates and are consequently not likely to be very accurate.

There are significant differences reflected by the districts, for example Sekhukhune is rated low because it is dominated by small- scale farmers. Limpopo has an estimation of 59 000 small scale and 15 000 commercial farmers. (in Limpopo Progress Report, 1995). The Mopani district is perceived to being efficient at R140 return per R100 invested. This however applies only to commercial farmers because it is seen as the food basket of the Limpopo Province, contributing 18 percent of the total horticultural products produced in the Republic of South Africa (Landbou Ontwikkelings program, 1991:15).

Agricultural technicians tend to rate their own Province higher when compared to the rating of their own area. There is also a discrepancy between the rating of large and small-scale farmers. There is a general agreement that extension efficiency is highest in the large-scale commercial situation, followed by the small- scale commercial or emerging situation with the lowest efficiency found in the subsistence small-scale farmer situation.

The perception of the agricultural technicians differs when compared with that of their supervisors. The findings are presented in Figure 6.2.

Agricultural technicians show a higher rating with regard to efficiency in extension. Figure 6.2 confirms the highest rating by the agricultural technicians when compared to the assessments by the managers and supervisors. For example agricultural technicians rated themselves 89 on own province whilst the supervisor's lowest assessment is 5.2. The likely reason for the difference is that agricultural technicians tend to overate themselves whilst the supervisors seem to be more conservative in their rating. The question is whether they are realistic or not. Another possibility for the difference in the rating of the agricultural technicians and the supervisors could be

the influence of the supervisor's experience. Based on the findings one must realize that there may be big loss of investments in extension.

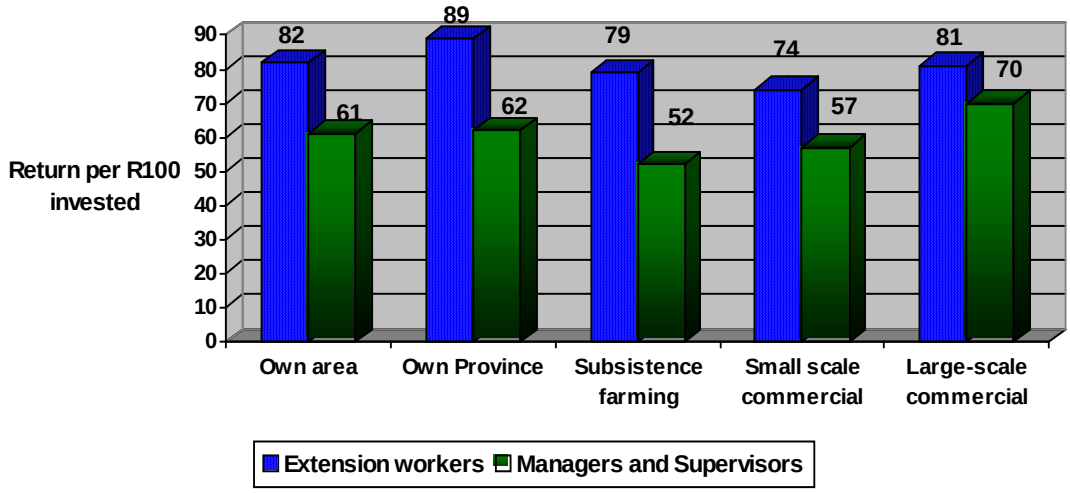

Figure 6. 2: The assessment by frontline extension workers and extension managers of the efficiency of extension in different situations and expressed as the return per R100 invested in extension

Another criteria used to assess the efficiency of extension delivery was their underperformance due to the absence of critical resources namely transport and finances. A more reliable indicator of the perceived efficiency of the extension delivery is suggested to be between the productivity level of 75 and 100 percent (Düvel, 2002:17). Respondents were requested to judge themselves in the absence of critical resources. An overview of their findings is presented in Figure 6.3.

The overall impression is that agricultural technicians seem to operate at half of their capacity. The likely reasons are lack of commitment, incompetence, and demoralised agricultural extension staff and to a lesser extent the lack of sufficient transport. The findings in Table 6.3 show a mean of 59 percent with the exception of the Waterberg district. The question is why Waterberg is exceptional while the other districts are not. The possible reason could be that the senior manager might not be aware of the challenges of his performance and consequently influenced his subordinates that nothing is wrong.

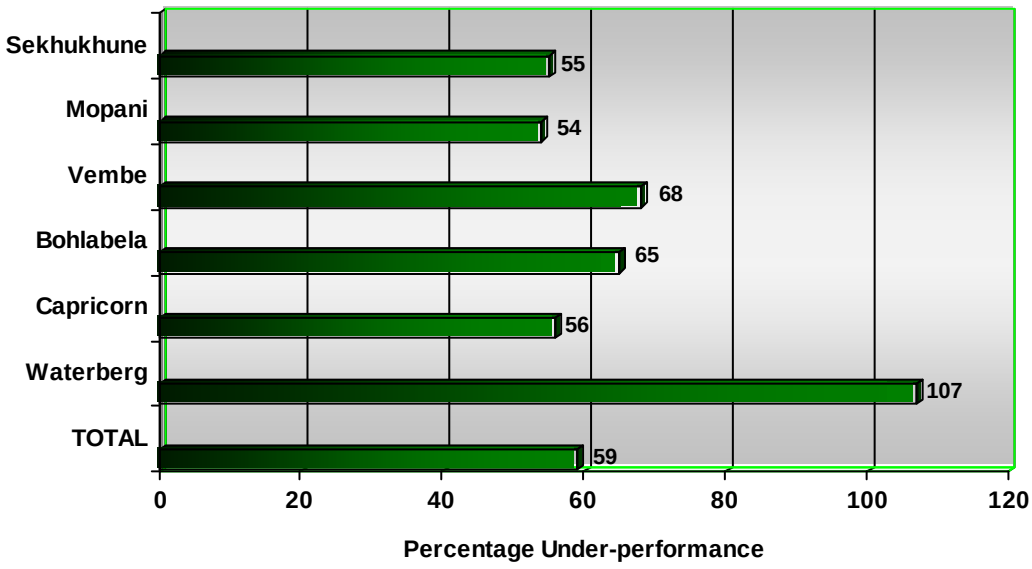

Figure 6. 3: The perceived under-performance of extension workers expressed as a mean percentage

6.5 COMPETENCY

Before the extension officer is allowed to do his /her job, it is agreed that he/she should have confidence and be competent to do the job. Agricultural technicians are often lacking in practical ability as a result of poor training (Adam, 1982:2). An indication of competency is qualification. The effectiveness and efficiency of extension is a direct function of the competency of the extension staff (Düvel, 2002:19). The findings are analysed in Table 6.4.

The qualification of agricultural technicians is very low. For example the large majority of agricultural technicians (84.4 percent) only have a certificate or diploma. There are few professional technicians (15.6 %) at the levels of BSc, BSc. Hons, MSc, Masters and none at PhD. A justified question is how the qualification can be improved or upgraded.

Table 6. 4: Distribution of frontline extension workers according to districts and the highest qualification in agriculture

Qualification	Certificate or Diploma		Adv. Dipl. BTech or B-degree		BSc, and BSc(Hons)		Masters, MSc, PhD		Total	
	N	%	N	%	n	%	n	%	N	%
Sekhukhune	55	87.3	7	11.1	1	1.6			63	100
Mopani	31	91.2	2	5.9	1	2.9			34	100
Vembe	32	78.11	7	17.1	1	2.4	1	2.4	41	100
Bohlabela	48	82.8	9	15.5	1	1.7			58	100
Capricorn	89	85.5	11	10.6	3	2.9	1	1.0	104	100
Waterberg	11	73.4	2	13.3	2	13.3			15	100
Total	**266**	**84.4**	**38**	**12.1**	**9**	**2.9**	**2**	**0.6**	**315**	**100**

Respondents were asked to assess themselves using a semantic 10-point competency scale. Their response is presented in Figure 6.4.

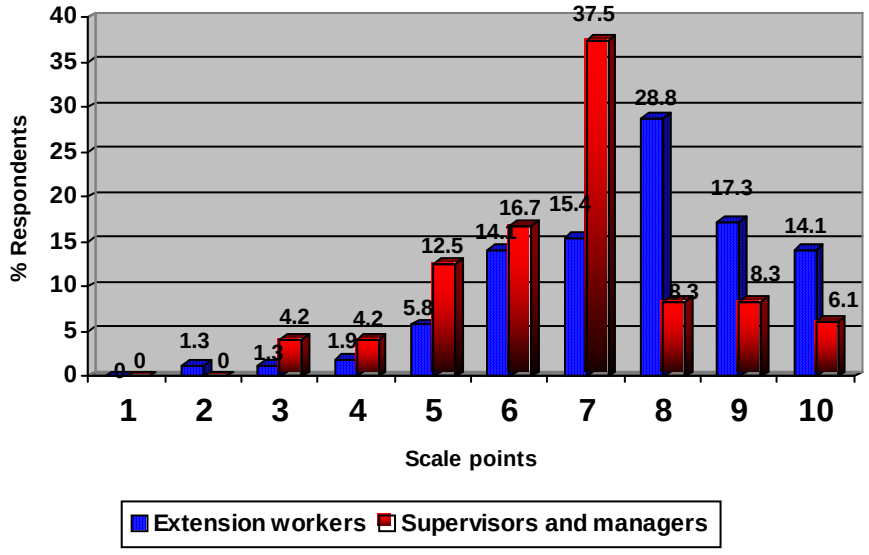

Figure 6. 4: Percentage distribution of extensionists according to their own competence assessment[17] and assessments by supervisors and managers

[17] *A 10 point competence scale was used with 1=very incompetent and 10= highly competent*

The comparison of competency assessments by the agricultural technicians and the supervisors shows clear differences. For example 60 percent of the agricultural technicians assessed themselves above 8 while supervisors perceived 37.7 percent within this category. On the other extreme, agricultural technicians assessed themselves 9 percentage points lower than the assessment by the supervisors and managers. The difference illustrates the likelihood that agricultural technicians tend to overate their competency while managers and supervisors who know them are inclined not to overate them.

The perceived competency of agricultural technicians was assessed by themselves and by their supervisors according to a competency scale based on the qualification categories. The findings are reported in Figure 6.5.

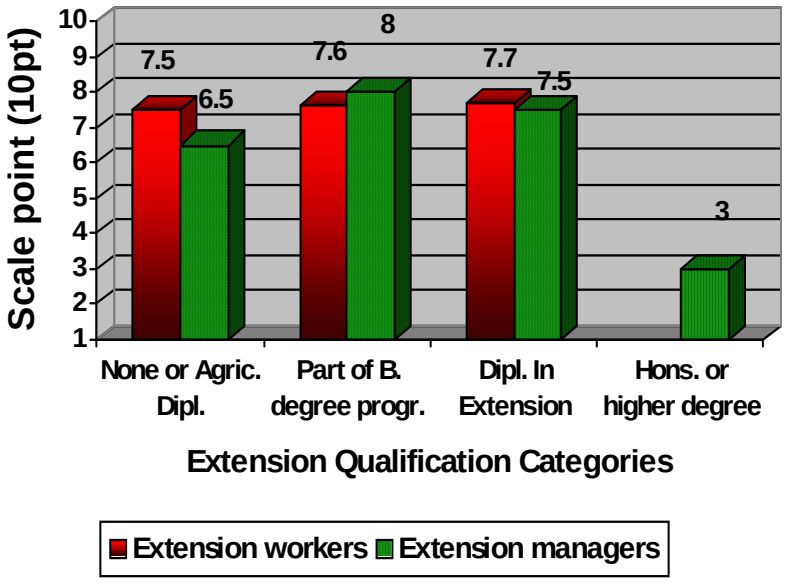

Figure 6. 5: The mean competence of frontline extensionists as assessed by themselves and by their managers/ supervisors in different qualification categories of extension

There is no clear tendency regarding the difference in the ratings of the extension qualification categories except in the higher qualification category, where extension managers are extremely critical of the competency of agricultural technicians. This implies that extension managers only become critical and thus more realistic above a

certain extension qualification threshold. This would suggest that managers should have at least an honours or similar qualification.

Another level of competency is the knowledge of the agricultural technicians. According to Van den Ban and Hawkins (1990:37) an extension worker wishing to give sound advice to farmers must understand not only the extension process but must also have adequate technical knowledge of the discipline in which he gives advice. For example he must have a thorough knowledge of animal husbandry if he is to be a livestock extension worker.

Table 6.5 presents the findings of extension workers as they assessed their knowledge in various fields using a 10-point scale (with "10" at the most favourable assessments).

Table 6. 5: The mean knowledge assessment of frontline extension workers by themselves as well as by extension managers using a 10-point semantic scale

Knowledge (Assessor)	Sekhukhune	Mopani	Vembe	Bohlabela	Capricorn	Waterberg	Total
1. Agric. Knowledge (a) Agricultural technicians' assessment	7.4	6.3	7.4	7.3	7.1	7.9	7.2
(b) Managers' assessment	6.0	7.0	6.0	7.3	8.3	6.3	7.2
2. Extension Knowledge (a) Agricultural technicians' assessment	7.6	6.2	7.2	7.0	7.2	8.3	7.3
(b) Managers' assessment	6.2	8.0	6.0	7.0	8.3	7.0	7.3
3. Economic Knowledge (a) Agricultural technicians' assessment	6.4	5.3	5.7	5.6	6.1	5.0	6.0
(b) Managers' assessment	5.8	5.0	6.0	6.0	7.5	4.3	6.1
4. Managerial Knowledge (a) Agricultural technicians' assessment	6.2	7.0	6.2	6.3	7.0	6.7	6.9
(b) Managers' assessment	6.6	6.0	8.0	6.7	7.7	7.0	7.1
5. Marketing knowledge (a) Agricultural technicians' assessment	5.9	5.0	5.8	5.6	8.1	4.7	6.6
(b) Managers' assessment	5.6	4.0	6.0	5.7	7.3	5.7	6.1

There are differences in the current knowledge levels of agricultural extensionists but no clear tendencies in areas of knowledge between the agricultural technicians and the

supervisors. Manager's assessments in Capricorn are higher compared with the assessment of the agricultural technicians. The question to be asked is why it is so. Another tendency is that in the economic and marketing knowledge, the manager's assessment is higher than that of the agricultural technicians. The difference could be the result of agricultural technicians who might have exposure to farmers on a daily basis and face challenges regarding the application of their knowledge. The assessments by the agricultural technicians seem to be accurate whereas the extension managers responded with higher assessments because they are less aware of the challenges faced by the agricultural technicians.

The agricultural technicians and the managers were requested to assess both the current and the required minimum level of knowledge (expressed as a scale point with "10" as the most favourable) that is essential in order to perform their extension task effectively or with confidence. The response is expressed in Figure 6.6.

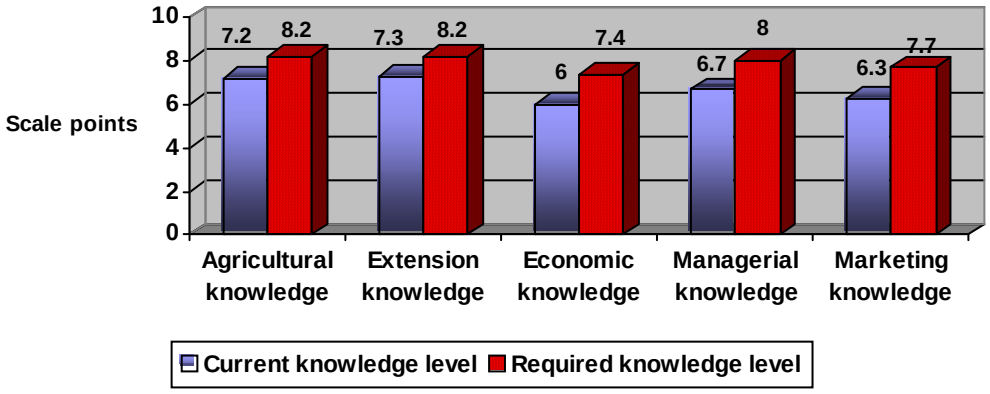

Figure 6. 6: The perceived mean current and required level of knowledge of agricultural technicians in different fields

There is a clear need for more knowledge in the different fields. For example the current knowledge level ranges from a scale point of 6 to 7.3, whereas the scale point of required knowledge starts at 7.4 to 8.2. This applies to managerial and marketing knowledge. The latter is due to the fact that emerging field that managers are not trained while knowledge becomes more important. Farmers are concerned about knowing how to combine specific knowledge of enterprises that will fetch higher

price in the market, therefore an agricultural technician who possesses the ability to influence profitability would be most helpful in Limpopo.

6.6 MANAGER'S KNOWLEDGE OF EXTENSION

Effective management of extension is hardly possible without a good knowledge and understanding of extension management principles. The extension manager's knowledge of extension was assessed and the findings are summarised in Figure 6.7.

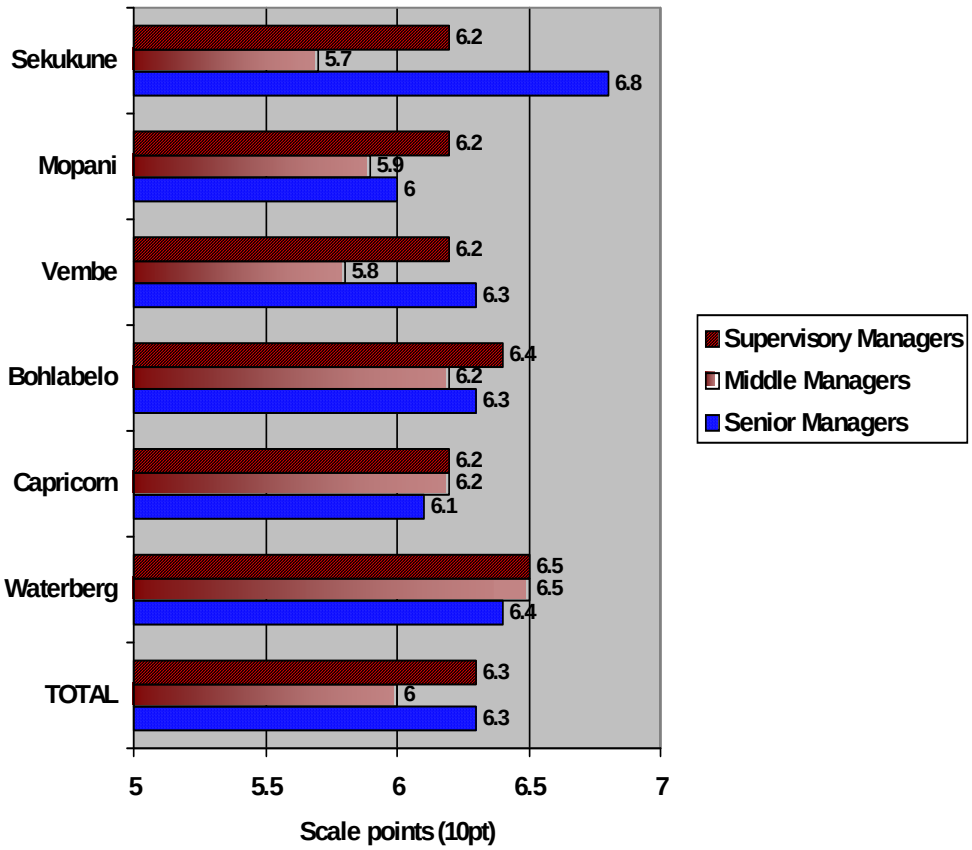

Figure 6. 7: The mean assessment of managers' knowledge of extension based on a 10-point semantic scale(with '10' as the lowest favourable assessment)

The mean level of extension knowledge is perceived as not high. For example, the extension knowledge of senior managers is on average 10 with an exception of Sekhukhune district where it is perceived by respondents to be lower than that of the supervisory managers. The possible reason for the exceptionally high assessment of

the acting senior manager in Sekhukhune district is that at the time of the survey the acting senior manager had received his B.Tech Degree and the agricultural technicians might have been convinced that the senior manager is knowledgeable in extension.

Middle managers tend to be assessed lower with an exception of Capricorn and Waterberg. The probable reason being that supervisors have close contact with respondents while middle managers do not have such contact. The perception of the agricultural technicians expressed in the table is confusing as it does not correspond with the real qualifications of the senior managers of the various districts.

6.7 CONCLUSION

The outstanding finding presented in this chapter is the poor performance of extension which is caused by a number of factors identified in the text. Against the background of these findings, the following policy guidelines are proposed:

Extension performance

Extension performance is dependent on the way the concept is interpreted and understood by agricultural technicians. But nevertheless the pre-requisite for good performance in extension is the ability to mobilise resources to achieve the objectives of the organization. The biggest challenge is to deliver on the mandate of the Department of Agriculture; which has an implication on the budget allocation to extension. There is no single view on whether extension is pro-active or reactive. In view of this situation it is recommended that extension should be proactive to allow proper planning and execution of the development programmes.

Audience focus

Development is a difficult venture especially when politicians demand quick results because extension is funded from public funds. The main focus of extension is on small scale and subsistence farmers, while the definition of a farmer is wide open to include even non- bonafide farmers. In view of the definition, the Department should consider revising the definition to include those who have demonstrated interest in farming for the sake of proper coverage within the resource constraints

Extension efficiency

The assessment of extension efficiency in Limpopo, based on the resources invested, suggests that on average 81 percent by the technicians and 60 percent by the supervisors achieve ratings below the international standard of R130 per R100 invested.

The investment in technicians on both small scale and large-scale farmers is probably running at a loss. It is suggested that the Department should take serious steps to ensure that there is sufficient return from investment. This would be achieved through strong supervision and creating awareness among the extensionists on economic principles.

Competency

The credibility of the extension workers for both the supervisee and the managers is not satisfactory. Agricultural technicians perceive themselves as having more credibility when compared to their supervisors whom they feel do not have sufficient knowledge in extension. It is recommended that managers should at least have an honours degree in extension before being recommended for the post of manager or senior manager.