S. Afr. J. Agric. Ext.
Vol. 47 No. 1, 2019: 1 – 19
http://dx.doi.org/10.17159/2413-3221/2019/v47n1a485

PERCEPTIONS OF EXTENSION OFFICERS REGARDING PUBLIC EXTENSION SERVICES: A CASE STUDY OF HORTICULTURAL EXTENSION OFFICERS IN THE HHOHHO REGION, ESWATINI

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ABSTRACT

The role of public extension in the sustainability and development of rural smallholder farmers is central to rural development. Although the benefits of public extension cannot be quantified to justify its funding, it remains pivotal to the success of poor smallholders with low literacy levels. The reports on agricultural extension in Eswatini paints blink picture on public extension. Data was collected on a census of 13 horticultural EOs alongside a snowballed sample of 82 farmers across the Hhohho region. The senior extension staff participated in a group discussion. The EOs were predominantly young males and were not trained in extension service delivery. The farmers were predominantly older females and had low levels of education. The EOs perceived themselves as good in horticultural issues and average in farmer management and agribusiness issues. They faced a number of challenges including work overload, being under-staffed, poorly resourced, inactive farmer groups, inconsistency of farmers' participation, and poor personal welfare. Institutionalising smallholder farmers in the community development plans (CDPs) and organising them into formal groups like cooperatives was identified as the first step towards improving public extension. This should be supported by training of EOs on Extension and business management. This would improve the efficiency of offering extension services and other benefits of collective operations. This would also reduce the EOs required per RDA and will enable the government to improve the welfare and operations of EOs.

Keywords: Public extension services, smallholder farmers, extension officers, perceptions

1. INTRODUCTION

The Eswatini government plays a major role in providing smallholder farmers in rural areas with extension services and inputs subsidies. Training of professional extension officers (EOs) Eswatini dates back to the 1930s alongside the introduction of rural development which was funded by the British government through the Agricultural Education and Extension (AEE) programme (Dube, 1993:23). This project also facilitated the development of rural development area (RDA) centres where EOs are housed with other rural development services. The training of EOs (AEE programme) was stopped after the external funding was exhausted,

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and government could not continue to finance the project. However, the RDAs continued to be functional, although at diminishing efficiency and effectiveness as government seemed to shift the whole focus from the RDA programme. Over the years, the government has reduced the budget to train, hire and support agricultural extension (Connolly, Ndlangamandla & Sikhondze, 2011; Dube, 1993:27; Keregero, 2000:80). Thereafter, extension agents from non-governmental organisations (NGOs) like Red Cross, World Vision, Micro projects, African Cooperative Action Trust (ACAT), Cospe, Technoserve and consultants became involved in providing agricultural extension services in rural areas. In essence, this was necessitated by the collapsing public extension services and general decline in rural economic development which was worsened by the HIV/AIDS impact. Moreover, parastatals like National Agricultural Marketing Board (NAMBoard), National Emergency Response Council on HIV/AIDS (NERCHA), and Eswatini Water and Agricultural Development Enterprise (ESWADE) were established. They were driven by government in partnership with international development agencies to fast-track rural development and to foster resilience from HIV/AIDS and climate change impact and the general alleviation of poverty. These international organisations included the United Nations Development Programme (UNDP), European Union, Food and Agricultural Organisation (FAO), International Fund for Agricultural Development (IFAD), and African Development Bank (AfDB), amongst others. The parastatals hired a large number of EOs from the RDA programme who were produced by the AEE programme and were offered better remuneration and benefits. These recent developments in rural areas have seen great transformation even in institutionalisation of rural areas through the development of community development plans (CDPs). This legislative framework seeks to govern current and future developments in rural communities by aligning traditional governance with modern developmental platforms and strategies.

Therefore, the World Bank (2011) recommended that the country has to revitalise its public extension programme if it wants to improve the benefits that smallholder farmers can contribute to rural development and economic growth. This recommendation is on-point as agriculture is still central to the development of Eswatini, especially rural areas where off-farm job opportunities are scarce. The study was conducted in order to track the developments of the government following this call by the World Bank. Its main aim was to source strategies and provide recommendations to revitalise the system as perceived by the EOs on the ground. The findings can also inform the public extension policy that is still under review by the Ministry of Agriculture (MoA).

This paper provides an overview of the public extension in the Hhohho region and extension officers' perceptions about the extension system and how it can be transformed. It highlights some possible strategic interventions that the Eswatini government could explore to revitalise public extension and improve its effectiveness and efficiency.

2. METHODOLOGY

2.1 Study area

The study was conducted in the Hhohho region of Eswatini. This region is in the northern part of Eswatini within coordinates 26º00'S31º30'E. It has an area of about 3625.17km^2 with a population of 282 734 as per the 2007 census [Ministry of Tourism and Environment Affairs (MTEA), 2011]. The Hhohho region is predominantly overlaid by the Highveld and Middleveld geographic regions. The Highveld has the highest altitude of 900-1400 masl; the

Middleveld ranges from 400-600 masl with an annual rainfall of between 500-1500 mm (MTEA, 2011:4). This makes the Hhohho region to be less prone to drought hence most rural communities still practice rain-fed subsistence agriculture alongside semi-commercial to purely commercial agriculture.

A total of four Rural Development Areas (RDAs) are spread across the Hhohho region. The RDAs are government driven strategic points for decentralising public extension services to rural communities and EOs are housed here. The centres provide both extension services to both subsistence and commercial farmers. The services include general farming information and technical services ranging from soil testing, subsidised tractor services and pests and diseases control.

2.2 Sampling and data collection

In the four RDAs there were only 13 EOs dealing with horticultural activities in the region. The other few EOs were dealing with other technical services like soil analysis and tractor pool management. The study sampled all 13 EOs who filled a questionnaire with both structured and open ended questions. Focus group discussions were conducted with RDA extension leaders during their meetings. Alongside this data collection from EOs, a snowballed sample of 82 horticultural smallholder farmers were interviewed. The interviews were conducted using a questionnaire with both structured and open-ended questions.

2.3 Data analysis

Data from questionnaires and one-on-one interviews was coded and entered into the Statistical Package for Social Science (SPSS) version 20. The small data sample of EOs limited in-depth data analysis for the study, thus only descriptive statistics were produced. The statistical data was presented and supported by data from group discussions.

3. RESULTS

3.1 Characteristics of extension officers

All the RDAs had horticulture focused EOs and the Ntfonjeni and Mayiwane RDAs had the highest number. Most of the EOs were young males and the majority of them were aged 40 years and below. Table 1 shows that 92.3% of them had recently joined the department, which was a result of the government's intervention to revive the dilapidating extension department. This young generation of EOs had agriculture related bachelor's degrees but without pure extension training, and only 16.7% of them had a certificate in Agricultural Extension. It was worth noting that 75% grew up in farming families which is common in most of Eswatini's rural areas, and 92.3% of them were farmers as well (Table 1). The young generation of EOs present an opportunity for the government to revitalise the extension programme. However the lack of raining in extension provision and management resulted in the provision of unprogrammed extension services and failure to improve the effectiveness and efficiency of farmer groups.

Table 1: The general description of EOs in the Northern Hhohho Region, Swaziland

Item	Variables	n	%
Which RDA do you work under?	Motshane	3	23.0
	Ntfonjeni	4	30.8
	Mayiwane	4	30.8
	Madlangemphisi	2	15.4
Gender	Males	9	69.2
	Females	4	30.8
Marital Status	Married	4	30.8
	Single	8	61.5
	De facto (just living together) partnership	1	7.7
Age	21 – 25 Years	2	15.4
	26 – 30 Years	3	23.0
	31 – 35 Years	3	23.0
	36 – 40 Years	2	15.4
	51 – 55 Years	1	7.7
	56 – 60 Years	2	15.4
Current position in the Department	Extension Officer	5	38.5
	Assistant Extension Officer	8	61.5
Experience in the position	0 – 5 years	12	92.3
	16 – 20 years	1	7.7
Highest level of education	Certificate: Agricultural Extension	2	15.4
	Diploma: Agriculture	1	7.7
	Degree: Agriculture	10	76.9
Are you working in your home area?	Yes	2	15.4
	No	11	84.6
Did you grow up in a farming home?	Yes	9	69.2
	No	4	30.8
Are you a farmer?	Yes	12	92.3
	No	1	7.7

There were only two EOs who had training in agricultural extension and they were above 50 years of age. This is a result of the University of Eswatini seizure to provide professional agricultural extension courses at undergraduate level. These two EOs were remnants of the old programme which is why they are both about to retire since the retirement age in Eswatini is 60 years. This has a potential to compromise the use of good extension approaches and farmer group management within the service which may reduce the adoption of technologies and worsen farmer group management.

Table 2: The relationship between age and educational level reached by EOs

Age	Highest Level of Education			Total	% EOs/ Age-group
	Cert. Agric. Extension	Diploma	Bachelor's		
21 - 25 years	0	0	2	2	15.4
26 - 30 years	0	0	3	3	23.1
31 - 35 years	0	0	3	3	23.1
36 - 40 years	0	0	2	2	15.4
51 - 55 years	1	0	0	1	7.6
56 - 60 years	1	1	0	2	15.4
Total Farmers	**2**	**1**	**10**	**13**	**13**
% EOs/qualification	**15.4**	**7.6**	**76.9**	**100**	**100**

3.2 Characteristics of farmers

Table 3: The relationships between farmers' age group and their gender

Gender		Farmer's Age Groups						Total	% Total
		21 - 30 Years	31 - 40 Years	41 - 50 Years	51 - 60 Years	61 - 70 Years	71 - 80 Years		
Farmer's gender	**Male**	4	2	1	8	13	0	**28**	**34.2**
	Female	1	7	15	14	15	2	**54**	**65.8**
Total		**5**	**9**	**16**	**22**	**28**	**2**	**82**	**100**
Total % Farmers		**6.1**	**11.0**	**19.5**	**26.8**	**34.2**	**2.4**	**100**	**100**

The farmers were mainly above 50 years of age and the majority were female as shown in Table 3. The results on the gender and levels of education (Table 4) show that women had the lowest levels of education in general. Over 90% (11/12) of the farmers without formal education were female. The low levels of education may have forced women into farming as they could not get off-farm jobs in towns. This argument can also be supported by the delayed entrance of males into farming as shown in Table 2. Therefore, strong extension is necessary to help these famers gain optimum returns from farming to raise their income and livelihoods.

Table 4: Comparison between male and female farmers with regards to access to formal education

Description		Farmer's highest level of education						Total	% Farmers
		No formal education	Lower primary (G1 - G4)	Higher primary (G5 - G7)	Lower secondary (F1 - F3)	Higher secondary (F4 - F5)	Tertiary Level		
Farmer's gender	Males	1	2	4	11	9	1	28	65.9
	Females	11	6	10	16	9	2	54	34.1
Total		12	8	14	27	18	3	82	100
% Framers		14.6	9.8	17.1	32.9	22	3.7	100	100

3.3 Operations

The EOs reported that the number of farmers they assisted ranged from 50 to over 500. Furthermore, 46.2% of the EOs were able to meet their farmers three times a month, while 15.4% could only meet their farmers once a month on average as shown in Figure 1. The EOs reported that most of these meetings were on-farm and requested by farmers. This was a major sign that these farmers needed extension services. Appendix 1 shows that about 63.4% of the farmers were aged above 50 years and 74.4% had education levels at lower primary and below, of which 14.6% had no formal education at all. The low levels of education and age of farmers justifies the need for high quality extension personnel.

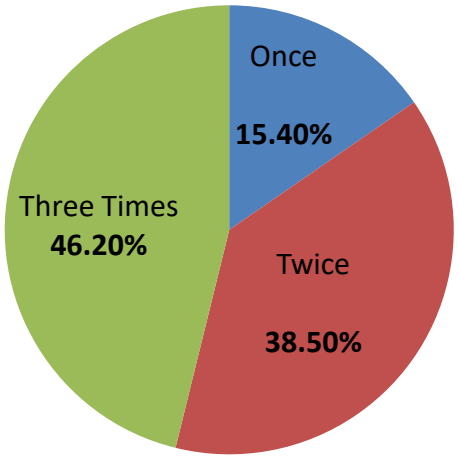

Figure 1: The average frequency of visits by EOs to farmers in a month

The EOs used different techniques to work with their farmers as shown in Figure 2. The most common technique was the farmer group followed by the individual farmer visit and then the farmer field school was the least favourable technique used. Although the group technique was the most popular, the individual farmer visit was also frequently used. The farmers in this region had dysfunctional farmer groups called schemes. These schemes operated individually

within the same location. This was a concern because smallholder farmers benefit more from collective action like pooling resources, access to markets, reduction of transaction costs, and bargaining power (Louw *et al.*, 2007; Markelova *et al.*, 2008; Ortmann & King, 2007; Stockbridge *et al.*, 2003). The popularity of the group technique suggests that it was easier and more convenient for EOs to attend grouped farmers or target the schemes. Therefore, if farmers would also work cooperatively the efficiency would greatly improve.

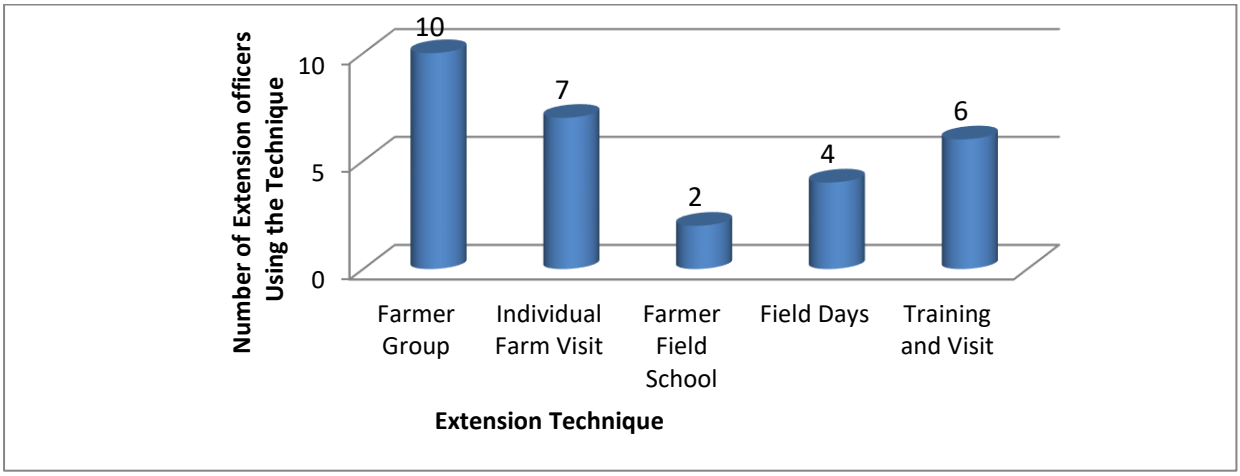

Figure 3: Number of EOs using a certain extension technique

Workshops help to refresh EOs' knowledge base, provide new information and skills, gives a platform for information sharing and industry strategic planning. It was found that 12 out of the 13 EOs had attended at least one workshop in the past three months which was on vegetables and crops production. All those who attended believed it was informative (5) and even very informative (7) as shown in Table 5. During the discussions, it was found that the workshops were generally financed and organised by NGOs. The impact of the workshops can be reflected on the EOs confidence in providing technical assistance in vegetable production (Table 6). However, equally important is the capacity building providing the group management and business skills.

Table 5: The number of EOs attended at least one workshop and their rating of the workshop

Responses		Rate the Informativeness of the Workshop			Total	%
		Very Informative	Informative	Neutral		
Attended any workshop the past three months?	**Yes**	7	5	0	12	**92**
	No	0	0	1	1	**8**
Total		7	5	1	13	**100**
% of Ext. Officer		**53.9**	**38.5**	**7.6**	**100**	

EOs were also asked to evaluate themselves on the tasks they do as shown in Table 6. The EOs indicated that they performed well in most of the activities they do. They also acknowledged that they were average in training farmers to draw business plans (mean: 2.54); managing conflicts and disputes in farmer groups (mean: 2.31); and finding cheaper inputs providers for farmers (mean: 2.54). Even though they rated themselves as good in securing market contracts (mean 2.77), the standard deviation (1.09) is big, suggesting that the consensus was weak in

this regard. Again, this talks to the need for EOs' capacity building on extension and agribusiness skills.

Table 6: Self-evaluation of EOs in doing some of the tasks mandated to them

Tasks	N	Min.	Max.	Mean	Std. Dev.	Comment
Training farmers on growing vegetables	13	2.00	4.00	2.92	0.76	Good
Advising farmers on produce marketing	13	1.00	4.00	2.77	0.83	Good
Advising farmers on pest and disease control	13	2.00	4.00	3.00	0.71	Good
Training farmers on drawing business plans	13	2.00	4.00	2.54	0.66	Average
Training farmers on financial management	13	1.00	4.00	2.69	0.75	Good
Forming cooperatives or farmer groups	13	1.00	4.00	2.85	0.90	Good
Securing good market contacts for farmers	13	1.00	4.00	2.77	1.09	Good
Representing farmers to government and NGOs	13	2.00	4.00	2.69	0.75	Good
Managing conflicts & disputes in farmer groups	13	1.00	4.00	2.31	0.75	Average
Training farmers new farming methods and trends	13	2.00	4.00	3.31	0.63	Good
Finding cheaper inputs providers or strategies	13	1.00	4.00	2.54	0.88	Average
Organise tractors, seeds and fertilizers for farmers	13	1.00	4.00	2.85	0.99	Good
Advise farmers on when to plant	13	2.00	4.00	3.23	0.60	Good
Assisting farmers understand market contracts	13	2.00	4.00	3.00	0.71	Good

Excellent (mean: 3.6-4); **Good** (mean: 2.6-3.5); **Average** (mean: 1.6-2.5); **Poor** (mean: 1-1.5)

3.4 General perceptions of extension officers

Table 7 to 10 summarises some of the perceptions that EOs had about the extension system. The analysis in the tables are based on mean values where Strongly Agree = 1-1.5, Agree = 1.6-2.5, Neutral = 2.6-3.5, Disagree = 3.6-4.5, and Strongly Disagree =4.6-5.

3.4.1 Perceptions about themselves

Table 7 shows that EOs perceived themselves as just government messengers to famers, and they are given a lot of work (mean: 2.0) yet they were underpaid (mean: 4.15). During the discussions, they raised a concern that other government employees with similar qualifications (Bachelor's degree) were paid far better than them, for example teachers. They believed that they were well trained to assist farmers (mean: 2.00) in the vegetable production business, but the standard deviation (1.23) shows that their agreement was weak in this regard. The EOs also noted that their department was poorly organised (mean: 1.39) and under-resourced (mean: 1.67) which made their work very difficult and reduced their effectiveness and efficiency. In general, EOs remained neutral about the issue that the extension programme has lost effectiveness, yet this would be the case under the poor working conditions and training gaps.

Table 7: Perceptions of Extension Officers (EOs) about themselves and their work

Perception	n	Min	Max	Mean	Std. Dev.	Comment
EOs are just government messengers	13	1.00	4.00	2.54	0.97	Agree
EOs are well trained for the job	13	1.00	5.00	2.00	1.23	Agree
Most EOs are aged personnel	13	1.00	5.00	2.85	1.21	Neutral
EOs are satisfied with their remuneration	13	1.00	5.00	4.15	1.35	Disagree
EO have lost interest in their job	13	2.00	5.00	3.67	0.89	Disagree
Ext. Department is under-resourced	13	1.00	4.00	2.39	0.97	Agree
The RDAs are under-resourced	13	1.00	4.00	1.67	0.89	Agree
Ext. Department is poorly organised	13	1.00	5.00	1.39	1.12	S. Agree
Ext. programme has lost effectiveness	13	1.00	5.00	2.85	1.14	Neutral
EOs have become irrelevant because of other sources of information	13	2.00	5.00	3.77	0.83	Disagree
EOs are given a lot of work beyond their contractual scope	13	1.00	4.00	2.00	1.00	Agree
EOs only to train about new farming technique	13	2.00	5.00	3.77	1.09	Disagree
EOs are not well trained in conflict management	13	2.00	5.00	3.31	0.86	Neutral
EOs are able to recruit new farmers	13	1.00	4.00	2.15	0.90	Agree

3.4.2 Perceptions about the government

The EOs perceived that government viewed their department as the least important (mean: 1.69) as shown in Table 8. Even though they remained neutral on how senior government officials treated them, some felt they were disrespected if we consider the mean and standard deviation. This resonates with perceptions that they were poorly remunerated and RDAs being under-resourced, yet they were given a lot of work. These perceptions have a large potential to demotivate EOs.

Table 8: Perceptions of EOs on government in relation to their work

Perception	n	Min.	Max.	Mean	Std. Dev.	Comment
Government regard extension department as least important	13	1.00	4.00	1.69	0.95	Agree
Senior government officials disrespect EOs	13	1.00	4.00	2.62	1.04	Neutral
Government policies are oppressive to smallholder farmers	13	2.00	4.00	2.92	0.86	Neutral

3.4.3 Perceptions about farmers

The EOs believed that both young and aged farmers needed EOs assistance as shown in Table 9. They also noted that most farmers were always keen to participate in their programme (mean: 2.39), but mainly when they were promised inputs (mean: 2.39). The EOs remained neutral on whether farmers are interested in coming together as farmer groups (mean: 3.0). Appendix 1 shows that the number of grouped farmers was found to be almost at par with individually

operating farmers. Even those who were grouped still operated as individuals in general. This deprives farmers of the benefits of collective action. Singh, Singh & Bara. (2012:57) argued that the roles for extension include (i) building farmer associations; (ii) providing platforms for information sharing; (iii) experimenting with and learning innovative approaches and (iv) linking farmers to research and other services. Terblanche (2008:59) highlighted technical competency, communication skills, group facilitation skills and extension management as key skills an EO must have. The role and skills mentioned by Singh et al. (2012) and Terblanche (2008) respectively could be attained by first undergoing an "extension management training programme".

The EOs further noted that children of farmers are usually not willing to take over from their parents. During the discussions, farmers and EOs alluded to the point that the youth view farming as a low income, laborious job, hence they would prefer off-farm jobs. This point again is a loss in smallholder development because young people are usually more able to grasp new farming technologies and business skills easier than older people who have fairly low levels of education.

Table 9: Perceptions of EOs about farmers

Perception	n	Min.	Max.	Mean	Std. Dev.	Comment
Without EOs vegetable production may stop	13	1.00	4.00	2.00	0.82	Agree
Farmers have more knowledge than EOs	13	3.00	5.00	3.69	0.75	Disagree
Farmers no longer consult Eos, they scout knowledge elsewhere	13	2.00	5.00	3.54	0.97	Disagree
Farmers are old and well experienced hence do not need EOs	13	2.00	4.00	3.54	0.66	Disagree
Young farmers are not ready to replace old retiring farmers	13	1.00	4.00	2.31	0.95	Agree
Farmers are reluctant to work together	13	2.00	4.00	3.00	0.91	Neutral
Farmers participate fully in the extension programmes and training	13	1.00	4.00	2.39	0.87	Agree
Farmers participate in extension programmes when they are promised inputs	13	1.00	5.00	2.39	1.26	Agree

3.4.4 Perceptions about other organisations

EOs viewed NGOs and other international organisations as helpful to farmers and the extension department as a whole (Table 10). Even though on average they denied that NAMBoard[4] was exploitative towards farmers (mean: 3.08), their consensus was weak (std. dev.: 1.26). The poor relationship between farmers and NAMBaord was also reflected by farmers (see Appendix 1). They accuse the NAMBoard for bridge of contracts and being opportunistic. This pushes farmers to rely more on the spot market where they are even more vulnerable. Therefore, EOs need to mend this relationship and assist farmers in enforcing contractual agreements with NAMBoard. The Swaziland National Agriculture Union (SNAU)[5] was viewed slightly helpful

[4] A parastatal for regulating horticultural produce markets in Eswatini but it also buys and sell horticultural products.
[5] An autonomous national union for farmers.

or neutral (mean: 2.69) to farmers but the EOs shared significantly different views on that. The majority of the farmers (84.5%) were not members of SNAU. During the discussions, it became evident that farmers had little knowledge about the union and did not know how it may help them.

Table 10: Perceptions of EOs about other organisations working with farmers

Perception	n	Min.	Max.	Mean	Std. Dev.	Comment
SNAU is not able to help smallholder farmers	13	1.00	4.00	2.69	1.25	Neutral
NAMBoard is exploitive to farmers	13	1.00	5.00	3.08	1.26	Neutral
Financial institutions avoid giving loans to smallholder farmers	13	1.00	4.00	2.46	0.88	Agree
NGOs are helpful to farmers and extension system	13	1.00	3.00	1.85	0.56	Agree

3.4.5 Perception on vegetable production as a business

In Table 11, it is shown that EOs thought that the vegetable production as a business was profitable and that is why 69.2% believed they can encourage more farmers to join the business. However, a few of the EOs (23.1%) thought their recruitment could only be a drive to achieve food security. These perceptions of EOs are not necessarily diverging, they support the general norm that rural agribusiness is both an income generating and food security strategy. However, those EOs who were skewed towards the food security option expressed that they thought the returns on farm income was small.

Table 11: Reasons for EOs to encourage farmers to venture into vegetable production.

Responses		Reason for encouraging them		Total	% Ext. Officers
		It's profitable	For food security		
Would you encourage more farmers to venture into vegetable production	**Yes**	9	3	**12**	**92**
	As a last resort	0	1	**1**	**8**
Total		**9**	**4**	**13**	**100**
% Extension Officers		**69.2**	**30.8**	**13**	**100**

3.5 Challenges faced by extension officers

The EOs listed the following challenges they faced in their department:

- Lack of transport to visit the large number of farmers and assist them to address their needs;
- Lack of office and field facilities like internet connected computers, appropriate clothing, demonstration facilities, communication and travelling allowances;

- They were understaffed (1 extension officer: over 500 farmers) to effectively assist all farmers in time which reduces effectiveness and compromises efficiency;
- EOs frequently left the department (staff turn-over) because they felt government was neglecting their welfare;
- Farmers faced a lot of challenges which their solutions rest mainly on government, yet government seemed to be not bothered about the smallholder vegetable farmers. This was viewed as a big let-down to EOs' efforts;
- Lack of rigorous workshops and in-service training to capacitate EOs;
- Very unsatisfactory remuneration of EOs by government was identified as the biggest setback in the department;
- New EOs found dissatisfied (hopeless) farmers and collapsing farmer groups, who have been holding empty promises from government / Parastatals and NGOs for years;
- Climate change made it difficult to advise farmers on issues of production; and
- Famers were in and out of farming, which made it difficult to keep a register of farmers such that when assistance came, it was difficult to identify the right beneficiary. This also made it difficult to plan training programmes for farmers.

3.6 Suggested solutions to extension officers' challenges

The EOs suggested the following interventions as the best possible means by which the extension system can be revamped:

- Government must provide at least two 4x4 vehicles for each RDA and motorbikes for EOs;
- Government must prioritise vegetable farming, even in terms of budget, not just in public statements and policies;
- Offices of EOs must be furnished with internet connected computers for research and information storage;
- EOs should be assisted in further trainings and workshops mainly in Agribusiness Management, Agricultural Extension and Farm Management;
- Government must improve the remuneration of EOs to sustain them in the department;
- The need for climate change coping strategies workshops for both farmers and EOs was also noted;
- EOs should limit their scope of work to commercial farmers and ensure they are sustainable and viable. This will ensure a clear register and organisation of farmers;
- Government, NGOs and UN agencies must commit themselves in helping farmers in a more sustainable manner and keep their promises;
- Government should seriously look in the welfare of farmers before they all shy away to vegetable farming; such intervention should focus on provision of water, lucrative and sustainable markets and inputs access; and
- Community leadership and EOs must work together and actively participate in the management and supervision of communal farmer groups.

4. DISCUSSION

The poorly resourced RDAs, low remunerations, large ratio of EO to farmers and lack of training opportunities suggest that government is struggling to support public extension. The results show that public extension in Swaziland was still facing the general neglect as previously reported by Connolly *et al*. (2011), Davis (2008:15), Keregero (2000:79), Oladele

(2011:6), Swaziland Agricultural Development Programme (SADP, 2011:15), and World Bank (2011:13). This government's failure to provide effective extension services was also reported by Swanson (2011:2) in other parts of Africa, who alongside other researchers like Christoplos, (1996:11), Groenewald *et al.* (2011:5), as well as Raidimi and Kabiti (2017:58), advocated for public-private partnerships in extension. However, these partnerships are difficult to foster, functionalise and sustain. Most advocates of pluralistic extension (Fischer & Qaim, 2012: 15; Farrington, 1998:1 and Umali-Deininger, 1997:220) argue that government role should support private (commodity) and NGOs extension endeavours by improving education, infrastructure, improving legislative efficiency, improve markets (finance, inputs and produce) and extension access. This leaves the technical aspects of extension to specialists in private extension and NGOs who have the resources to employ highly skilled EOs.

The profile of farmers (see Appendix 1) shows that farmers seem to be reluctant to work together even if they are part of a single farmer scheme. This increases the costs of providing extension services and deprives farmers from the benefits of collective action. In the extension point of view, the more organised the farmers, the more feasible and convenient it is to develop long term extension programmes. Fischer and Qaim (2012:3) found that farmers often fail to organise themselves into formal groups, hence they need support from EOs to do so. Therefore, EOs need to take it upon themselves to mobilise, motivate and organise the farmers. Unfortunately, the EOs were not trained in organising farmers into groups which is a core course in extension training. Thus, the few EOs should be assisted and trained in group dynamics, negotiating, forming linkages, and cooperatives legislations. Government and the University of Swaziland or other colleges should provide short courses on extension. That would not only benefit public extension, but even private extension and project based extension would benefit from that course.

The EOs were experts in different agricultural fields like horticulture, soil science, land and water management, and agribusiness management. This makes them subject matter specialists who lake the "human management and development component" of extension. The lacking bit is key in enabling them to rebuild the dilapidated farmer schemes, motivate youth to engage in farming and build new functional farmer groups. The main role of extension is designing and implementing a scientific but simple program that will change farmers' attitudes and concomitantly behaviour for adoption of good farming practices. The technical aspects are a bonus.

The dissatisfaction about remuneration and poor resourcing of RDAs may be two of the major reasons why EOs thought that government is considering them as the least important department. This increases the staff turn-over which negatively impacts the consistency and effectiveness of extension programmes. Interestingly, EOs felt valued by farmers which shows that EOs are able to establish good working relations with farmers. The neglect of extension by governments is not peculiar to Eswatini. Oladele *et al.* (2009:310) reported the same about Southern Africa in general, while Anderson and Feder (2004:55) found a similar scenario globally. Anderson and Feder (2004:43) argued that the lack of precise cost benefit analysis to support the huge funding requirements for public extension may be the main reason governments have reduced the spending on extension. However, if the extension services are focused to organised commercial farmers, the government would be in a position to hire few skilled EOs and improve their welfare. This would make it even easier to monitor and evaluate the extension department by government.

The RDAs are the work stations for EOs and service centres for farmers; hence it is very important in the revitalisation exercise. RDAs need proper computers with internet for EOs to research current information and international studies. They should also be equipped with proper transport and other resources to visit and train farmers. These assets and technologies can be costly and, in most cases, not prioritised by the government. However, the influx of projects targeting rural farmers could be an opportunity to provide these working infrastructures and resources for EOs in RDAs. The government could house rural projects in the RDAs and negotiate with project implementers to allocate a budget that would go into improving the RDAs as a project sustainability strategy.

The EOs fully acknowledged the role of NGOs in transforming farmers and the extension programmes. However, they did not say the same about organisations such as SNAU, NAMBoard and other financial organisations. Development practitioners (World Bank), SNAU, farmers and horticultural middlemen have criticised NAMBoard as being unfair to be a regulator and a competitor. They argue that the Board could play the regulatory role and assist farmers with markets information and to meet grades and standards.

Financial organisations like Swazi Bank and FINCORP were established partly to develop financial products for rural farmers, but they have since shied away from them. This may be due to the fact that farmers were poorly organised, lacked business management skills, lacked irrigation infrastructure, and the general risks of climate change impact on crop production. Therefore, EOs should be trained on the development of farmer organisations that are able to attract capital from members (like cooperatives) and local entrepreneurs/investors. In addition, government should try and assist active farmers to rebuild farm infrastructure like the irrigation system to reduce the risk profiles of farmers.

5. CONCLUSION

The study showed that EOs lack training in providing extension services and agribusiness capacity building was also a major gap for EOs. This resulted in a disorganised (individual operating) smallholder farmer landscape which caused difficulties in offering extension services and depriving farmers from the benefits of collective action. The lack of qualified extension on the young EOs was a matter of concern because they lack the central component of their day-to-day activities. Moreover, EOs were exposed to some kind of government neglect as they lacked working resources in RDAs and their welfare was poor, especially in terms of remuneration. However, they showed some promising levels of passion in doing their work and they even felt that farmers value them. The farmers were aged with low levels of education with a disappointingly low number of young farmers. The demographics of farmers were a recipe for low levels of innovation and adoption of modern business and technology models. Therefore, the need for qualified extension officers to “hold them by the hand” is still fundamental. Equally so, the need for the youth in smallholder agribusiness is still fundamental. EOs alone cannot take on that task, but the government alongside NGOs and traditional leaders should spearhead that direction and institutionalise smallholder agribusiness sectors under the confines of the CDPs programmes.

6. RECOMMENDATIONS

The government needs to coordinate with training institutions like the University of Swaziland to provide EOs with full courses in extension delivery that has a component of agribusiness

development and management. The trained EOs should be contractually bound to serve the department after completing the course. The government, community leaders alongside EOs should help the extension department institutionalise commercial smallholders in rural areas and professionalise them as a sector of the rural economy under the CDPs. This could be followed by mobilising and motivating existing farmers to join formal groups which would be trained and supported by qualified EOs. This strategy will enable the government to hire a few competent EOs hence it would be easier to improve their welfare and provide them with working resources. Finally, the government could liaise and negotiate with NGOs who are implementing rural projects to include certain infrastructure and resources in their project budgets that would be handed over to the RDAs as means to provide capacity for project sustainability.

7. ACKNOWLEDGEMENTS

We would like to thank the staff in the extension department of the Ministry of Agriculture in Eswatini for allowing us to conduct the study and participating in it. Our gratitude also goes to the farmers for their participation in the study and reviewers who helped improve this paper's quality.

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APPENDIX 1

Famers' Demographics and Landscape

Characteristics	Variables	Frequency	%
Gender	Male	28	34.1
	Female	54	65.9
Age	21 – 30 years	5	6.1
	31 – 40 years	9	11.0
	41 – 50 years	16	19.5
	51 – 60 years	22	26.8
	61 – 70 years	28	34.2
	71 – 80 years	2	2.4
Marriage	Single	9	9.70
	De facto partnership	1	1.20
	Married	54	65.90
	Widowed	18	23.20
Level of Education	No Formal Education	12	14.6
	Lower Primary Education	8	9.8
	Higher Primary Education	14	17.1
	Lower Secondary Education	27	32.9
	Higher Secondary Education	18	22.0
	Tertiary Education	3	3.7
Experience in Farming	0 – 5 years	24	21.0
	6 – 10 years	18	22.0
	11 – 15 years	10	12.0
	16 – 20 years	8	9.0
	21 – 25 years	0	0.0
	26 – 30 years	7	9.0
	31 – 35 years	4	5.0
	36 – 40 years	4	5.0
	41 – 45 years	7	9.0
RDA	Motshane	21	25.6
	Ntfonjeni	36	43.9
	Mayiwane	16	19.5
	Madlangamphisi	9	11.0
Full time / part time farmers	Yes	75	91.5
	No	7	8.5
Type of land tenure	Swazi Nation Land	80	97.6
	Title deed Land	2	2.4
Acquisition of land	Bought it (Title Deed)	1	1.2
	Personally *khonta* -ed	25	30.5
	Belongs to my family	19	23.2
	Borrowed by neighbour or friend	1	1.2
	Communal farmer group fields	36	43.9
Farm size	<1ha	55	67.1

	1ha	18	22.0
	2ha	3	3.7
	>3ha	6	7.0
Target market	Export	1	1.2
	Local homestead & shops	59	72.0
	Urban Vendors	5	6.1
	NAMBoard	7	8.5
	Urban shops and Export	10	12.2
Possession of any marketing contract	Yes	19	23.2
	No	63	76.8
Rate current production	Poor	1	1.2
	Below Average	11	13.4
	Average	36	43.9
	Above Average	31	37.8
	Excellent	3	3.7
5-year projection of yield	Increase	28	34.2
	Same	21	25.6
	Decrease	33	40.2
Organisation of farmers	Individual farmer	34	41.5
	Registered cooperative	6	7.3
	Farmer group with individual fields	42	51.2
Are you willing to work as a cooperative?	Not interested	36	43.9
	Not sure	8	9.8
	Definitely interested	38	46.3
Are you registered with NAMBoard?	Yes	31	37.8
	Still to register	10	12.2
	Will never register	39	47.6
	Have withdrawn my membership	2	2.4
Are you a member of SNAU?	Yes	12	14.6
	No	70	85.4