



**Investigating the Role of Women in Agricultural Extension
Advisory Services in KwaZulu-Natal, South Africa: Current-
Status, Challenges, and Prospects**

Johnson Abidemi Adebayo

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ABSTRACT

This study investigated women's role in agricultural extension advisory service, with a focus on their status, challenges, and prospect, using the uMgungundlovu District of KwaZulu-Natal, South Africa as a case study. The study was conceived to identify the gender gaps among agricultural extension workers relative to overcoming household food security and enhancing rural livelihood, especially among women farmers, pointing out some hindrances limiting women's involvement in extension advisory services. Extension plays a significant role in enhancing agricultural production and community development initiatives. However, sustainable agriculture, rural livelihood sustainability, and food insecurity at the household level are still of great concern and continue to be substantial challenges for rural dwellers, especially women farmers in South Africa. Hence, this study Investigates the roles of women in agricultural extension advisory services in South Africa relative to overcoming household food security, the challenges confronting women advisors and farmers, and their empowerment needs, with specific reference to the KwaZulu-Natal province.

The research processes used for this study are two-fold: a theoretical and philosophical process, on the one hand, and an empirical process, on the other hand. Both processes Involved a systematic Investigation pattern. This study draws from relevant published works, in the case of the theoretical process, to establish the gap that exists between female and male extension advisors. The study also establishes the degree to which women and men jointly participate as extension advisors, concerning the role of women advisors in facilitating household food security, rural livelihood, and sustainable agriculture among farmers, with special linkage to the profile of women in Africa Agriculture.

The empirical process includes data collection through semi-structured interviews with selected respondents comprising of Provincial and district directors and deputy directors of extension and advisory services, a director of a non-governmental organization, female and male extension practitioners, and female and male farmers. Twenty respondents, including fifteen female extension advisors and five provincial and district stakeholders in extension advisory services, participated in the Investigation of the constraint confronting women extension advisors. Also, forty-five respondents were interviewed on the prospect of empowering women extension advisors. Some of the respondents were involved in both investigations.

The study found that whereas all other provinces have a majority of male extension advisors, KwaZulu-Natal is more evenly split between females and males' extension advisors. However, this unique demographic did not appear to offer the female extension advisors any advantage with respect to the challenges they generally face as women extension workers. Key among challenges confronting women extension advisors includes: egoistic attitudes, and are biased toward women extension advisors, a persistent manifestation of gender disparity, Skills deficiency, and security threat.

The study also found that female extension practitioners are a crucial support system to smallholder farmers, especially women and are Instrumental in increasing women's participation in commercial agriculture production. However, key factors such as insufficient or inadequate technology knowledge, especially skills in digital tools, marketing, project management, and soil fertility test knowledge have constantly affected their efficiency. As such, they are limited in the level and extent to which women farmers' extension service needs could be met. Therefore, empowering female extension practitioners holds the prospect of Improving women farmers' efficiency and effectiveness.

The study concluded on the need for appropriate actions that strengthen women participation by creating a conducive work atmosphere that facilitates and promotes female extension practitioners' empowerment and tackle the challenges that often impede their productivity. It recommends the need to include women extension advisors' voices in policy making. The Implication of this is that women will be directly involved in the design of the policy that shapes their services, given that most time, National policies and/or frameworks do not always translate well to the local level where iimplementation is required.

PREFACE

The data described in this thesis were collected in the uMgungundlovu District of KwaZulu-Natal, South Africa, from July 2020 to September 2021. Fieldwork was carried out while registered at the School of Life Sciences, University of KwaZulu-Natal, Pietermaritzburg, under the supervision of Professor Steven Worth.

This thesis, submitted for the degree of Doctor of Philosophy in the College of Agriculture, Engineering and Science, University of KwaZulu-Natal, School of Agriculture, Earth, and Environmental Sciences, Pietermaritzburg campus, represents original work by the author and has not otherwise been submitted in any form for any degree or diploma to any University. Where use has been made of the work of others, it is duly acknowledged in the text.



Signed.....

Johnson Abidemi Adebayo

October 2022

I certify that the above statement is correct, and as the candidate's supervisor, I have approved this thesis for submission.

.....

Professor Steven Worth

Supervisor

October 2022

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DECLARATION 1 – PLAGIARISM

I, Johnson Abidemi Adebayo, declare that:

1. The research reported in this thesis, except where otherwise indicated, is my original research.
2. This thesis has not been submitted for any degree or examination at any other university.
3. This thesis does not contain other persons' data, pictures, graphs, or other information unless specifically acknowledged as being sourced from other persons.
4. This thesis does not contain other persons' writing unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a. Their words have been re-written, but the general information attributed to them has been referenced; and
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DECLARATION 2 – PUBLICATIONS

DETAILS OF CONTRIBUTION TO PUBLICATIONS that form part and/or include research presented in this thesis.

Publication 1: Published (Research in Globalization)

Women as Extension Advisors

Johnson Abidemi Adebayo & Steven Worth

Author contributions: JAA conceived the paper with SW. JAA collected analysed data and wrote the paper. SW contributed valuable comments to the manuscript.

Publication 2: Provisionally Accepted (Journal of International Agriculture and Extension Education)

Profile of Women in African Agriculture

Johnson Abidemi Adebayo & Steven Worth

Author contributions: JAA conceived the paper with SW. JAA collected analysed data and wrote the paper. SW contributed valuable comments to the manuscript.

Publication 3: In review (Journal of Sociologia Ruralis)

Constrains confronting women extension advisors: A case study from DARD Extension Advisors at uMgungundlovu District of KwaZulu-Natal, South Africa

Johnson Abidemi Adebayo & Steven Worth

Author contributions: JAA conceived the paper with SW. JAA collected and analysed data and wrote the paper. SW contributed valuable comments to the manuscript.

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Prospect of empowering women extension advisors: A case study from DARD Extension Advisors at uMgungundlovu District of KwaZulu-Natal, South Africa

Johnson Abidemi Adebayo & Steven Worth

Author contributions: JAA conceived the paper with SW. JAA collected analysed data and wrote the paper. SW contributed valuable comments to the manuscript.

Signed: 

Johnson Abidemi Adebayo

October 2021

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LIST OF ABBREVIATION

AGRA	Alliance for a Green Revolution in Africa
DAFF	Department of Agriculture, Forestry and Fisheries
FAO	Food and Agricultural Organization
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
ISRIC	International Soil Reference and Information Centre
UN	United Nation
UNDP	United Nation Development Programme

CHAPTER 1

GENERAL INTRODUCTION

1.1. Background to the study

The enormous contribution made by women to agricultural development is an established and tenable fact (Raney *et al.*, 2011; Paroda, 2019). Similarly, they play a vital role in several non-production agricultural activities including food processing, marketing, cash crop production, and livestock. Women's involvement is significant not only in terms of their labour input but also in terms of decision-making (Kabeer, 2005; Luqman *et al.*, 2018). Drawing from Jiriko (1999), a nation's agricultural production and living standards will not be improved unless women are actively engaged. This is sufficient evidence that women are equal to men in agriculture (Paroda, 2019). However, their role in the agricultural value chain is often not acknowledged, given the continuous perception bias that “women are not farmers” persists even though women are engaged in a wide range of agricultural activities (Haile, 2016). Despite decades of gender-mainstreaming efforts, recent evidence does not show any substantial progress or improvement in gender equality in extension service delivery and activities (Haile, 2016).

The role of women in agriculture has been documented over the past years by international development agencies, national governments, and researchers (IFC, 2016; Glazebrook *et al.*, 2020; Haug *et al.*, 2021). According to the Food and Agricultural Organization (FAO; 1990a,1990b,1990c, 2011), the weight of women's agricultural work is significant, ranging from 40% of agricultural labour in Latin America to between 60 and 80% in both Asia and Africa. However, agricultural extension services in Africa are largely designed and implemented with the male head of the household as the intended client and often ignoring women active participation as an economic agent with their special needs and constraints’ (Haile, 2016; Onuekwusi and Chukwu, 2014). Studies (World Bank/IFPRI 2010; Katungi *et al.* 2008; Gilbert *et al.* 2002) shows that women access to extension services is limited compared to men. For example, in Malawi only 19% of women farmers have access to extension services compare with 81% men, 1.13% versus 2.03% contacts in Uganda, 20 % versus 27 % in Ethiopia, and 8% women compare with 29% men in Indian. FAO global survey

on extension activities in 115 countries (Haile, 2016; Swanson *et al.* 1990), report that women received a mere 2 and 10% of all extension contact globally, with 5% of extension resources allocated to them worldwide.

Thus, the challenge for extension planners is ensuring that both female and male farmers are included as extension clientele and identifying the appropriate means of directing training and technologies to them. According to FAO (2011), given equal access to productive resources like their male counterparts, women extension advisors can play a significant role in the food security of households and economic growth.

In several African countries, labour is divided by gender in agriculture based on crop, task, or both (Jaim and Hossain, 2011; Flatø *et al.*, 2017). However, these divisions are not static and may change in response to new economic opportunities. Jaim and Hossain (2011) reported that women's role in agriculture is shifting from unpaid family workers to farm managers, their participation in agriculture as entrepreneurs is increasing in a phenomenon called feminisation of agriculture. For example, women farmers are a key stakeholder in the South Africa agricultural labour force, comprising 60% to 80% of the agricultural labour force (Statistics South Africa, 2021). Even with this, they are still largely omitted from important economic opportunities and agricultural processes that leave them vulnerable to hunger, poverty, food insecurity and the impacts of climate change (Van de Haan *et al.*, 2022). The need to secure gender equality in the labour market is entrenched in the South African constitution, among other gender goals, with a spelt-out legislation that strongly promotes gender equality in employment and the workplace. However, despite this constitutional ideal, South Africa remains one of the most unequal societies in the world regarding gender equity (Van de Haan *et al.*, 2022). The incidence of gender discrimination in the labour market and among men and women farmers is very prominent. Therefore, Van de Haan *et al.* (2022) posited that gender-responsive services are crucial to ensuring and promoting economic opportunities for women farmers. Kondylis *et al.* (2016) suggested in their study that the pathway to increasing agricultural yields may be to enhance female farmers' productivity. The study states further that empowering women in extension positions may hold the long-term prospect of helping women farmers overcome obstacles created by inequitable access to agricultural extension services.

Empowering women extension advisors has also been regarded as essential to realizing sustainable development in the agricultural sector (Rui and Nie, 2021). Women extension

advisors are important in supporting women farmers, promoting rural communal and land reform projects, and facilitating national policies addressing women's marginalisation in agriculture. They can help with specialised extension services targeting women farmers (Van de Haan *et al.*, 2022). Agricultural extension programmes that ignore women's farming and advisory roles risk low returns, inefficiency and, in the long term, failure to achieve development objectives (Manfre *et al.*, 2013). Also, extension activities carried out without the participation of female farmers and female extension personnel risk negatively impacting women farmers and their families (Manfre *et al.*, 2013).

Several studies have elaborated on the importance of female advisors in agricultural extension services (Ofuoku and Ekoehi-Robinson, 2018; Oladokun *et al.*, 2018; Glazebrook *et al.*, 2020). These studies also pointed out that extension agents are overwhelmingly male, while a significant percentage of the agricultural labour force is female (Ofuoku and Ekoehi-Robinson, 2018; Glazebrook *et al.*, 2020). The lack of female advisors is often noted as a constraint to improving the delivery of agricultural services to women (Mamun-ur-Rashid *et al.*, 2017). Involving women in agricultural extension services is often hindered by different factors such as education literacy, cultural barrier, poor transport facilities, the rigorous demands in extension services, and the difficult terrain in which extension advisors operate (Manfre *et al.*, 2013; Luqman *et al.*, 2018). Many obstacles are embedded in agricultural extension services' capacity, structure, and policy (Kabeer, 2005).

Bayeh (2016) and Ofuoku and Ekoehi-Robinson (2018) point out the traditional barriers to communication between men and women in many cultures; how, for example, female extension workers could access women's local social networks, whereas men could not. This is significant given that communication dynamics are most effective when extension agents are similar to their clients in all respects except technological competence (Bayeh, 2016; Ofuoku and Ekoehi-Robinson, 2018). Research in several African and Caribbean countries documented that female advisors are better able to communicate with women farmers than their male counterparts, even in countries with relatively few social barriers to male-female interactions (Haile, 2016). There is evidence that female agricultural extension agents can more effectively communicate with female farmers, and, in some cultural contexts, it is the only way to reach female farmers (Quisumbing and Pandolfelli, 2010). To ensure that the needs of female farmers are met, it will be expedient to build up the number of female extension advisors so that woman-to-woman extension delivery is possible (Haile, 2016).

However, despite the importance of women's extension service to agricultural growth and development, relatively little is known about their work (Mmbengwa *et al.*, 2009). Ragasa (2014) observed that there are currently a limited number of women extension agents, especially in Africa and Asia, thereby having an adverse effect on the number of female farmers reached. Given this paradox, it is us to examine the social, cultural, logistical and policy constraints that impede women from working as agricultural extension agents.

The number of female extension agents in South Africa is minimal. The challenges they face are also less documented because of inherited biases built into the models of extension systems used in Africa (Zwane *et al.*, 2017). Research has also mostly concentrated on generalised extension services and, by default, the efficiency of men extension workers neglecting the involvement of women's extension services and how efficiently they can perform if provided with equal access to resources, training, and services (Koch, 2007).

This study seeks to elicit information about female extension advisors, the challenges they face, and how it has been tackled. This case study was carried out in KwaZulu-Natal, South Africa to explore the challenges and areas of empowerment required by women extension advisors. The study also investigated how women's empowerment can help improve their services to farmers and facilitate household food security and rural livelihood to attain extension goals.

1.2. Research Objectives

The main objective of the study was to investigate women's role in agricultural extension advisory services, with a focus on their status, challenges, and prospect.

The specific objectives are to investigate or determine:

- To identify and explore how female extension advisors can help to improve food security, and enhance rural livelihoods;
- To establish the participation level of female agricultural extension advisors in agricultural extension activities in the context of achieving agricultural extension goals;
- To determine the level of technical competence and the empowerment required by female agricultural extension advisors; and
- To identify and develop responses to the constraints confronting and limiting female agricultural extension advisors.

1.3. Research Questions

The following central questions guided this study: What are the roles of women in agricultural extension advisory services, their challenges, and how they can be tackled?

This primary research question gave rise to the following secondary questions:

- a. How can female extension advisors help to Improve food security and enhance rural livelihood?
- b. What is the participation level of female extension advisors in agricultural extension activities as related to agricultural extension goals?
- c. What is the level of female extension technical competence and the empowerment they required?
- d. What are the constraints confronting and limiting female extension advisors?

1.4. Research Design

Study Area and Sampling

The study was carried out primarily in the uMgungundlovu District Municipality, KwaZulu-Natal, South Africa. It used interviews and surveys among the *Department of Agriculture and Rural Development* (DARD) extension advisors, relevant Directors in DARD, and NGOs actively engaged in extension programs. Some selected male and female farmers were also interviewed in the study.

Sampling can be defined as the process of selecting units (e.g., people, organisations) from a population of interest so that by studying the sample, we may, to an extent, generalise our results back to the population from which they were chosen (Trachoma, 2006). In this study, a representative sample was selected from among DARD agricultural extension workers, directors of agencies (both from the DARD and Rural Women Movement) and small-scale female and male farmers to participate in this study. According to Sutton and Austin (2015), the quantitative research approach can help researchers understand the thoughts and feelings of research participants, enabling the development of an understanding of the meaning that people ascribe to their experiences or the problem under study.

Sample size

The study employed purposive sampling to select four DARD Directors of agricultural extension advisory services and rural development at the provincial level, Directors of extension services at district level, and one NGO (Rural Women Movement) who are involved in promoting activities that can enhance food security, sustainable agriculture, rural livelihood, and women's land right campaigns at provincial and national levels. Purposive sampling is a method in which elements are chosen based on the purpose of the study. Purposive sampling is often appropriate when selecting a sample size to represent the population of interest in the study (ILO, 2009).

Purposive sampling was used to select 20 public extension practitioners employed by DARD in the uMgungundlovu District Municipality. The 20 public extension practitioners comprised 15 female and 5 male extension practitioners. Also, 20 small-scale farmers consisting of ten women and ten men were selected from the Ngilanyoni area, in Richmond, a town within the uMgungundlovu District Municipality. purposive sampling allows for the deliberate selection of individuals or groups of individuals that are proficient and well-informed with a phenomenon or characteristics of interest relevant to the objectives of this research (Etikan, Musa, and Alkassim, 2016; Cresswell, and Plano Clark, 2011; Bernard, 2002).

Data gathering method

The study combined several data techniques to collect information from the respondents. Yin (2002) and Yazan (2015) noted that data in case study research could be derived from multiple sources of evidence, with data needing to converge in a triangulating fashion and benefit from the prior development of theoretical propositions to guide data analysis and collection. Further, they recommend the use of participant observation, documentation, interviews, archival records, direct observation, and physical artefacts, each of which is not without its strengths and weaknesses.

Literature review: Literature review involves a critical and analytical account of existing knowledge containing information related to the research problem (Snyder, 2019). Literature articles containing primary and secondary data important to the study were examined, evaluated, and recorded to achieve the purpose of this study. The articles were assessed to

identify and develop indicators that were used for the interviews, focus group discussion and participant observation.

Semi-structured interviews: Semi-structured interviews were used to capture extension officers' socio-economic issues and how it affects their perceived status, challenges, and prospects. Interviews are the most commonly used data collection method (Taylor 2005). The semi-structured format is the most frequently used interview technique in qualitative research (DiCicco-Bloom & Crabtree, 2006) as it has proved versatile and flexible and can be combined with individual and group interview methods (Kallio *et al.*, 2016). One of the main advantages of the semi-structured interview method is that it can successfully enable reciprocity between the interviewer and participant (Galletta, 2012), enabling the interviewer to follow up questions based on participant responses (Kallio *et al.*, 2016) and allowing space for participants' verbal expressions (RWJF, 2008). Adams (2015:493-494) noted:

“Semi-structured interviews are superbly suited for a number of valuable tasks, particularly when more than a few of the open-ended questions require follow-up queries. Especially consider employing SSIs in the following situations:

- If you need to ask probing, open-ended questions and want to know the independent thoughts of each individual in a group;
- If you need to ask probing, open-ended questions on topics that your respondents might not be candid about if sitting with peers in a focus group;
- If you need to conduct a formative program evaluation and want one-on-one interviews with key program managers, staff, and front-line service providers; and
- If you are examining uncharted territory with unknown but potential momentous issues and your interviewers need maximum latitude to spot useful leads and pursue them".

Focus group discussion (FGD)s: This study also used the FGD interview method. FGD, also called group interviewing, is a qualitative research methodology. It is based on structured, semi-structured, or unstructured interviews. It allows qualitative researchers to interview several respondents systematically and simultaneously (Babbie, 2011 & Boateng, 2012). FGD is commended and widely used by researchers in recent times mainly because of its strength of convenience, economic advantage, high face validity, and speedy results (Boateng, 2012).

Focus group discussion is often employed as a qualitative approach to gain an in-depth understanding of social issues. The method aims to obtain data from a purposely selected group of individuals rather than from a statistically representative sample of a broader population (Nyumba *et al.*, 2018). According to Akpabio *et al.* (2007: 41)

“Data from focus groups are less likely to be misinterpreted because the comments are typically made within a broader discussion. Misunderstood questions are readily evident and could therefore easily be corrected or recast by the facilitator. In contrast, one-word or short phrased answers of questionnaires provide little basis for assurance that the questions were understood as intended....

“Because of the flexibility of the questions, focus group discussions elicit materials, insights, attitudes and beliefs that may not be revealed in survey questionnaires or observation methods. very In focus groups, the researcher or a knowledgeable facilitator also has the opportunity to clarify issues or follow up responses during the sessions”.

Document Analysis: The study used document analysis to help the researcher corroborate findings across the data set, reducing the influence of possible potential biases in a single study (Bowen, 2009). In this study, the researcher examined past periodic reports of the Department of Agriculture, Land Reform and Rural Development, KwaZulu-Natal that expose the gender profiling of government-employed extension advisors and the national framework for the minimum norms and standards for extension advisors. This was used to extract information that detailed, explained, and made clear the picture of women as extension advisors, their overall conditions, and their impact on the achievement of extension goals among rural farmers, especially women.

Documentary information is particularly applicable to qualitative case studies, whereby the researcher uses the information to understand specific issues related to the phenomenon currently under Investigation (Bowen, 2009). Document analysis is a method broadly deployed alongside interviews and observation in the case study (i.e., serving to complement other research methods), as it provides a methodological process for sifting meaning from documentary evidence (Bowen, 2009; Wood *et al.*, 2020). As Abdu-Raheem (2013) explains, a document's strength lies with the fact that they exist in the situation and do not alter the settings in ways that the investigator's presence will influence.

Research validity and trustworthiness: In this research, as explained above, data were collected through various sources ranging from focus group discussion, semi-structured interviews (both for Directors of DARD, extension practitioners and farmers), participant observation and document analysis to achieve validity and trustworthiness, thereby improving the study through the credibility and integrity of findings and interpretations, called triangulation (Guion *et al.*, 2011; Lemon & Hayes, 2020).

Data Analysis: The data analysis used in this study involved a qualitative approach such as content and Inductive coding that is targeted towards examining meaningful and symbolic content of qualitative data (Abdu-Raheem, 2013:9; Forman and Damschroder, 2007). The study obtained a direct data from the qualitative data to quantitatively examine differences in the types of responses people gave to the different types of excerpts. Data gathered through literature reviews were analysed for the emerging themes. In addition, the contents of the semi-structured interviews, focus group discussion and participant observation notes were reviewed and coded to identify the emerging concepts and themes. They were further analysed based on their themes and repeated patterns of meanings and relationships (Abdu-Raheem, 2013:9). Content analysis is a rule guided techniques used to analyse the informational contents of textual data (Mayring, 2000; Forman and Damschroder, 2007). The qualitative and quantitative methods of content analysis all both share the central feature of systematically categorizing textual data to make sense of it (Forman and Damschroder, 2007).

1.5. Limitations of the study

The limitations of this study are as follows:

a. Generalization of the findings, conclusion, and recommendation

This study, being a case study, draws on data collected exclusively from the provincial and district directors of extension advisors, district extension advisors and farmers and the late director of the rural women movement, all in KZN and most within the uMgungundlovu District Municipality. Thus, although the results add to the growing understanding of gender issues in agricultural extension, they cannot be generalized. Similarly, while the findings, conclusions, and recommendations may resonate in other areas, they are more relevant to the KZN province and may not readily apply to the other provinces of South Africa or elsewhere.

b. Low sample size of extension advisors and farmers

The study did not use a large sample size, which may have enhanced the value of the study. Although, the plan was to interview many extension advisors, the turnout of the extension advisors was poor. Despite securing a letter of approval to interview extension advisors and individually calling over 40 extension advisors, only 20 of them granted the researcher an audience. Although unconfirmed, it is believed this low turnout was likely due to general reticence to participate in work-based research and, lack of incentive because of Covid 19 restrictions. Considering language may have been a barrier, an interpreter was employed during the study period to mitigate this possibility. However, this still did not improve the response rate – leaving the total number of extension advisors who participate at 20. Financial constraints and the study's limited timeframe constrained the researcher from employing other methods of reaching the unresponsive extension advisors.

1.6. Structure of the Thesis

This thesis comprises six chapters as follows:

Chapter 1 serves as an introductory chapter and helps create coherence across the entire thesis.

Chapter 2 is a literature review that opens the first discussion about women in agriculture. It is drafted as stand-alone article structured for publication. It provides a backdrop for Chapter 3.

Chapter 3 is also a literature review that focuses on women in agriculture in the specific context of service as extension advisors. It was published on 1st October 2022 in the Journal of Research in Globalization. There is significant overlap with Chapter 2. This was unavoidable given that the two chapters were structured to be published independently. Since Chapter 3 has been published, any apparent self-plagiarism in the current format of these chapters in this thesis will be addressed through adding relevant citing. if and when Chapter 2 is published

Chapter 4 is the first data chapter. It presents the findings of the study relating to the constraints confronting women extension advisors. It has been formatted for submission as a stand-alone journal article.

Chapter 5 is the second data chapter. It presents the findings of the study relating to the prospect of empowering women extension advisors. It has been formatted for submission as a stand-alone journal article. There is significant overlap with Chapter 4 – particularly with regard to methodology. This was unavoidable given that the two chapters were structured to be published

independently. Any apparent self-plagiarism in the current format of the chapters in this thesis will be addressed through adding relevant citing if and when the chapters are published.

Chapter is the final chapter of the thesis with a summary, conclusions, and recommendations. It has not been formatted for publication.

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CHAPTER 2

Profile of Women in African Agriculture

Johnson A. Adebayo & Steven H. Worth

Agricultural Extension and Rural Resource Management, School of Agriculture, Earth and Environmental Science, University of KwaZulu-Natal, Pietermaritzburg, South Africa

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Corresponding author: Johnson A. Adebayo Email: jaadebayo@gmail.com ORCID: <https://orcid.org/0000-0002-9464-3458>

Other emails and ORCIDs

Steven H. Worth Email: WorthS@ukzn.ac.za; ORCID: <http://orcid.org/0000-0002-3291-5542>;

Abstract

The role of women in Agricultural enterprises cannot be overemphasized. Their involvement is important not only because of their contributions in marketing, food processing, cropping and animal husbandry, but also because of their decision-making abilities. Therefore, this paper attempts to profile women in the African agricultural sector by examining the degree of their participation in agricultural activities. A literature review was conducted to investigate the participation of women farmers in the agricultural labour force. Women's specific roles, their economic status and how women agricultural extension practitioners can contribute to enhance women-farmers' profile, welfare, and livelihoods we explored. The review confirmed that agriculture is a dominant force in providing employment and daily means of livelihood for many rural women across African countries. Despite several obstacles, including poor customary tenure, poor allocation of resources, limited or no access to agricultural extension services and unfavourable policy and implementation that often limit their productivity, women farmers still play a lead role in the continent's agricultural sector – but their potential is far from being realized. A parallel finding was that most agricultural extension practitioners in many developing countries are men, and their services are often oriented and channelled to favour men farmers, thereby depriving women farmers of the essential agricultural extension services needed to realize their potential. The study suggested that there is a link between the current limited progress of women farmers and the scarcity of women extension practitioners. This led to the recommendation that measures should be taken to increase the number women serving as agricultural extension practitioners with the express intent of reaching women farmers, and concurrently to ensure that they are afforded the requisite budgets and operational status to be effective.

Key words: Women in agriculture, Women in agricultural extension, Women as farmers

2.1. Introduction

This is the first of two chapters that explores the role and challenges of women in agriculture in Africa. This first chapter examines the topic along a broad front and thereby creates the context for the second chapter that focuses specifically on women as agricultural advisors. As stated in Chapter 1, because both chapters were developed as stand-alone papers to be submitted independently there is necessarily substantial repetition of some of the basics aspects related to women in agriculture. Chapter 3 which is the second chapter on this topic has already been published. Thus, should Chapter 2 be accepted for publication, the necessary citing will be included to ensure there is no self-plagiary.

“African women play a central role in the continent’s agriculture sector. As the backbone of the sector, they represent 52% of the total population in the sector and are responsible for approximately 50% of the agricultural labour on farms in Sub-Saharan Africa (SSA). They...also produce 60% to 80% of the continent’s food” (Njobe, 2015: 5).

The important role women play in agriculture in Sub-Saharan Africa is well documented. Women are known to be responsible for several African agricultural enterprises including enterprises engaged in marketing and food processing in addition to cropping and animal husbandry (Palacios-Lopez *et al.*, 2015). In particular, women’s decision-making abilities make their involvement in agricultural enterprises especially important and valuable. This importance is coming more to the fore as the increasing rate of men’s migration to cities and other countries in pursuit of economic opportunities has led to many women becoming heads of households and managing farms daily (Saito and Weidemann, 1990; Kassie *et al.*, 2014). Hence, there is reason to give greater attention to the improvement of agricultural productivity among women in Africa. According to Mukasa and Salami, (2016), women are often regarded to be less productive than males in the agricultural sector. And yet, they represent a formidable force in the agricultural sectors. Their contribution to economic development in Africa cannot be over-emphasized. They represent a main driving force in the agricultural sectors, spending significant time planting, weeding, ridging, and harvesting, while simultaneously doing other household tasks (Mukasa & Salami, 2016). Women Involvement is significant not only in terms of their labour inputs, but also in terms of their decision-making authority as household head

and farm business owners (Henn, 1983; Egziabher, 2014). However, they are particularly operating under great constrained in terms of less access to land, technology, credit, poor agricultural output, limited access to resources and information provided by extension practitioners (Henn, 1983; Moock, 2019).

This review will present a holistic profile of women in African agriculture principally by considering their participation in agricultural activities, i.e., their involvement in the agricultural labour force. The review profiles women farmers' specific roles and their contributions to the agricultural and rural economies. It also explores how women extension advisors can enhance this profile. The review also discusses unique challenges affecting women farmers' welfare and livelihoods, especially in communities in some African countries where the socio-cultural norms prevent or limit interactions between men and women. Understanding the profile and situation of women farmers in Africa is important to empowering African women and pursuing the development of the upcoming generation of women farmers as well as farmers in general. It is argued that addressing the issue of women in agriculture is essential to fostering an increase in Africa's food supply, which is considered a key program of African and International policymakers (AGRA, 2012; Palacios-Lopez *et al*, 2015).

2.2. Women in agriculture: an overview of policy and practice

In the context of this paper, policy is considered a catalyst for change and genuine transformation in the agricultural sector, given its ability to remove barriers and facilitate such changes as equitable access to resources among the various actors in the agricultural value chain (Rawe *et al*. 2019). Joughin and Kjær, (2010), Haggard and Kaufman, (1992), and Nelson (1994) identify five drivers of influence behind agricultural policies in Africa: interest groups; clientelist pressures; electoral pressures; donor influence; and ideology. They argue that interest Groups play a key role in all policy change. As such, gender inclusion, especially pertaining to land rights, feature prominently in the agricultural policy of many African countries (Quan, Tan, and Toulmin., 2004). For example, the national and provincial department of agriculture in South Africa made a concerted effort post 1994 to develop policies and programmes aimed at developing a stronger and robust agricultural sector. Central to these policies was the need to promote equity among farmers in terms of racial and gender representation. Among these is access by female farmers to land, modern technologies, and other inputs (Hart and Aliber, 2012). However, Ogunlela and Mukhtar (2009) demonstrated that women's right to agricultural land is still being hampered by customary practices in which

women are often treated – and minors do have right to own and control land. Despite the existence of equity-focused policy, patriarchy and discriminatory legislative laws still exist in many African countries. Similarly, Haug et al (2021) shows that while women farmers are a dominant force in agricultural decision-making on the ground in countries such as Malawi, Rwanda, Kenya and South Africa, women farmers do not enjoy gender equality in relation to workload, family responsibilities, mobility, opportunities, and freedom. This is but one of several examples bringing to light the persistent gap between policies and practices in the African agricultural sectors.

2.3. Women as farmers

Women perform productive roles in the agricultural sector. Women comprise 43 percent of all agricultural labour attributed to women worldwide (Adeniyi, 2010; Tisdell et al. 2017). Haug *et al* (2021) determined that women carry out more of agricultural work than men in South African, Malawi and Tanzania. They reported that small-scale farming characterizes women's agricultural workload in this region of Africa. Vaqué (2020) discussed extensively the feminization of agriculture, attributing the increase in women farmers to the need for diversification in family incomes that draws men away from farming in Africa, the Caribbean, and Latin America. The research shows that by 2013 women farmers were the custodians of three out of ten farms in the study region.

Research by Glazebrook, Noll and Opoku (2020) further re-emphasized that women farmers play prominent role in agricultural projects targeted towards providing affordable food for food insecure communities in the global south. Alongside their farming activities such as land preparation, planting, harvesting, and marketing, women farmers are also responsible for domestic chores such as, cooking, taking care of children, fetching water and firewood. This increases their workload to the point that it exceeds that of men farmers (Haug *et al.* 2021).

Different studies (World Bank and IFPRI, 2010; Ragasa *et al.* 2013; Tarekegne and Dessie, 2020) have shown that women farmers have relatively less access to extension services than their male counterparts. The exclusion/marginalization of women farmers from extension services has adverse effects on their agricultural productivity and efficiency – effectively undermining agricultural development agendas (Tarekegne and Dessie, 2020). Therefore, to promote change in the status of women farmers, research suggests or at least implies that extension delivery services should be reformed in such a way that women and men farmers enjoy equal services – and perhaps that the extent the extent of the disparity warrants policy that specifically addresses women farmers and their particular needs. For example, Manfre *et al.* (2013) suggested that deploying more women-to-women extension services can help aid transfer of information, knowledge, and skills to women farmers especially in region where women farmers are been marginalized.

2.4. Women in the agricultural value chain

An agricultural value chain is described as the sequential process involved in moving an agricultural product through series of steps from production to the final consumers (Rubin and Manfre, 2014; Hadebe and Msuya, 2016). Agricultural value chains are a critical tool for creating jobs, increasing household incomes, and economic growth of the developing countries (Hadebe and Msuya, 2016, Vroegindewey and Hodbod 2018; Ola, 2020). The International Finance Corporation (IFC) (2016) in assessing the varied opportunities and constraints confronting men and women between different regions and across diverse agricultural value chains, emphasized the under-acknowledged roles of women in production, and post-harvest processing as crucial to the quantity and quality of the final commodities produced.

IFC (2016) also reported that women are less represented in some value chain aspects such as transportation, marketing, and sales; they are playing limited roles outside local markets, which in turns prevent them from benefiting from the most profitable elements of agricultural value chains. In their findings, Coles and Mitchell (2011) maintain that women are still largely excluded from agricultural value chains, in what they tagged as overwhelming inequalities that disadvantage women in agricultural value chains. Similarly, in a study conducted in Tanzania, Hadebe and Msuya (2016) found men to be more involved than women in the tomato value chain. In determining the factors responsible for the under representation of women in agricultural value chains, Ola (2020) and (IFC, 2016) found that farm size, hired labour, technology, access to information, level of educational level, age, assets, networks, and distance to market canters are some of the factors that negatively impact women's participation in agriculture value chain.

Expanding on this dimension of the status of women in agricultural value chains, Sahel (2014), Adam et al. (2018), Chete (2018), and Robert-Agbaje (2017) reported that the inadequate recognition of women in agricultural value chains in the African context can be linked to lack of technical know-how, limited access to market and finance, restrictions on land ownership and tenure, violence and sexual harassment, poor information on existing markets, and lack of access to female extension workers. These findings suggest the need for a gender smart investment that is women inclusive and promotes women participation at every stage of agricultural value chain. Beyond removing barriers, the investment should ensure that women acquire the knowledge and skills required to function efficiently in the agricultural value

chains, guarantee their access to extension services and otherwise position women so they are able profit at whatever stage of the value chains they enter.

2.5. Women as wives of farmers

Munz (2021) illustrates farmers' wives as being for homemaking and running errands including cooking, milking cows, operating farm machinery, raising chicks to generate income, and sometimes aiding their husbands in decision-making. Munz (2021) citing Rosenfeld (2017) further established that farmers' wives are consistently regarded as a helper or helpmate which eventually subjugates their work and diminishes their individual importance. Beach (2013) and Rugh (2001) underscore the importance of women's contribution to farming and agrarian households arguing that farming economics is such that it will hardly be possible for men farmers to succeed without the help of their wives.

Despite this apparent importance, Yngstrom (2002) also argues that most farmers wives, as a result of getting married to a farmer, cannot be or are not considered in the same light as independent women farmers as their labour is often rated as secondary and marginalized in farming economics. Their productive inputs to agricultural investment and rural household welfare are similarly often neglected by extension advisors, development officials and planners (Thagwana, 2010, UNDP, 2007, 2008, Gasson, and Winter, 1992). Overall, these findings indicate that women as wives of farmers often have to depend on their husband's incomes for their livelihoods rather than being equal partners. Manfre, *et al.* (2013) argue that increasing the number of women extension advisors can provide a strategic way to identify and meet the needs of women farmers who are also wives of farmers.

2.6. Women as heads of households

According to Beegle *et al.* (2016), women-headed household account for 20% of the population in 37 African countries. Women-headed household trends in Southern Africa ranges from 36.3% in Lesotho (2006), 43.9% in Namibia (2013), 47.9% in Swaziland (2007) and 41.2% in South Africa (2011), with majority of farmers who are rural communities' dwellers. In South Africa, 2012 data show that there are high percentages of women headed households in the rural provinces of Limpopo (49.2%) the Eastern Cape (44.7%), KwaZulu-Natal (43.5%), Free State (41.7%), and Northern Cape (41%). The more urbanized provinces of Gauteng and Western Cape have the lowest percentage (30%) of women-headed households in South Africa (Lehohla, 2013; Flatø *et al.*, 2017). Disadvantaged households are often headed by women who

are widows, divorced or separated, or single, but are mostly involved in subsistence farming (Milazzo and Van de Haan, 2017).

The situation of women-headed households is particularly vulnerable. According to Modirwa, and Oladele (2012), the uneven distribution of resources which is often prevalent in most Africa nations often leads to food insecurity which is more pronounced in women-headed household as compared to households headed by men. Food insecurity is one of many overwhelming disadvantages faced by women who are household heads; two others are insufficient income and lack of emotional support, in terms of getting basic needs (Varley, 1996, Appleton, 1996; FlatoSelet *et al.*, 2017; Momsen, 2019 and 2002;). Although there is variation in the status of women-headed household status across different region and communities in Africa, however, South Africa female headed household suffered considerably more, than other female-headed household families in other part of Africa.

This presents a further argument favouring explicit gender focus in policy and practices to remove inequalities that impede women from becoming active agents in improving their livelihoods and those of their households (World Bank, 2009). It is noted that the issue of women-headed households has been given more attention recently in the development and implementation of policy as a result of the rapid increase and widely perceived vulnerable status of women-headed households in both developing and developed region (Flatø *et al.*, 2017). Specifically, the issues of women-headed households have been given special consideration in more recent gender development and planning (Annan *et al.* 2021).

2.7. Acceptance of women in the agricultural sector

It is argued that, in Africa, women spend approximately 60% of their time on agricultural activities, and that they represent critical human resources in African agricultural development (Emansion, 2012; Njobe and Kaaria, 2015). Nonetheless, this role and contribution is persistently undervalued to the point that women farmers are often perceived as being economically inactive (Jiggins *et al.* 2011; Pogoy *et al.* 2016). For example, Pogoy *et al.* (2016) and Jiggins *et al.* (2011) in their studies show that administrators and policymakers often consider women farmers as only playing a supportive role as farmers wives. Therefore, not much importance is attached to reaching women with agricultural extension services by extension advisors (Manfre, *et al.* 2013; Njobe, and Kaaria, 2015). Conversely, in another study, findings show that women farmers often perceived themselves as capable of doing men's

jobs and express their desire to be included in formal extension training programmes and courses (Kritzinger, and Vorster, 1996). However, as a result of the gender division of labour that exists within the rural family structure, and the notion upholding farming as men's occupation, many women farmers (especially in rural communities) still identify themselves as subordinate on the farm (Whatmore, 1991; Pini, 2002; Trauger *et al.* 2008) – a notion which Amenyah, and Puplampu, (2013) regard as a misconception of women roles as agricultural stakeholders.

The IFC (2016) found that African women farmers only have access to about 10% of agricultural extension services and are thus have scant access to knowledge exchanges about improved agricultural practices, sustainable farming, correct use of inputs, and industry trade practices. Thus is the augment building showing the necessity to recruit enough female extension practitioners to link women farmers with adequate agricultural extension service, and to initiate a planned gender sensitive extension program to increase the acceptance and recognition of women in the agricultural sectors, and training and facilitating them to develop self-confidence in carrying out agricultural businesses beyond subsistence farming.

2.8. Economic status of women in Agriculture in Four selected African Countries

Economic status is an important and determining tool for facilitating or measuring social change and development (Gurung; 2008). According to Oladipo and Adekunle (2010) the factors, which account for the economics status of an individual in a society, are determined by the society. Gender roles and responsibilities in most Africa countries are defined and affected by changes in economic situations of those countries (Seleti and Tlhompho, 2014; FAO, 2008) However, studies by Bandama (2016), Amenyah and Puplampu (2013), and Duncan (2004) show the women's economics narrative in African agricultural sectors to be that of perpetual struggle and poverty (Agheneza, 2009; Seleti & Tlhompho, 2014). In terms of working towards Improving economic empowerment and expanding income opportunities for women, Freeman et al. (2020) shows that South Africa, Ethiopia, Ghana, and Nigeria fair better among many Africa countries. However, economics inequalities between men and women farmers continue to persist in these countries, as most women farmers are economically vulnerable (Flatø *et al.*, 2017).

, For example, in South Africa, women farmers face various barriers in accessing finance, including lack of financial literacy, lack of financial confidence, as well as cultural prejudices and negative stereotyping towards women as farmers (Flatø *et al.*, 2017). Flatø *et al* (2017)

found that most Africa women farmers fare economically worse than men, making them to be socio-economically disadvantaged. Their limited access to resources in the areas of agricultural extension, education, land, and access to credit have also been found to contribute to their marginal economic status (Bandama, 2016). Therefore, to further gain insight into the economic situation of women farmers, we review their state in four selected Africa countries as follows.

2.9. South Africa

Leeuw (2009) and Seleti and Tlhompho, (2014) found that South Africa rural women farmers play a central role in household and community agricultural activities. Other studies (Kotane, 2009; Ncube, 2009; ; Raidimi, 2014; and FAO, 2019;) further show that women represent the majority of smallholder farmers operating at household level in the majority of South Africa rural communities. Similarly, according to Raidimi (2014), women in Limpopo province of South Africa are engaged in all agricultural functions except initial land clearing and heavy ploughing. Men migrating to work outside of agriculture contributed significantly to increase women's participation in the agricultural sector.

However, women increased and increasing participation has not earned them economic stability nor adequate cash income to support their households and ensure their livelihoods are sustainable (Seleti and Tlhompho, 2014). According to Thaba-Nkadimene, *et al* (2019) subsistence women farmers are the most vulnerable to poverty given the constraints on their participation within the South African economy. Their low output and poor economics status are often associated with limited access to extension practitioners and lack of access to productive resources. For example, Myeni *et al.* (2019) determined that nearly all (99%), subsistence farmers, including women, in the Eastern Free State of South Africa did not have access to extension service but rather depended primarily on indigenous knowledge when making farming decisions. Myeni *et al.* (2019) explain further that only 1% of these farmers have access to extension advisory on crop production. Maziya *et al.* (2020) posits that access to extension advisory services by women farmers may help to improve access to information and economic empowerment.

It is thus argued that the low estate of women in the South African agricultural sector can be transformed by deploying more women agricultural extension practitioners to serve as channels for information on access to markets, land, credit facilities, and other production resources.

2.10. Ghana

Ghana is regarded as an agro-based country; the main economic activities in Ghana are agriculture (including hunting, forestry, and fishing) (52.3%), wholesale and retail trade (14.5%), and manufacturing (11.1%) (Amu, 2005). In 2008, agriculture accounted for 32% of Ghana's GDP (Diao, 2016). A decade later, Ghana had attained low-middle income status in World Bank classification (World Bank, 2020), with agriculture accounting for 54% of GDP and 40% of export earnings (FAO, 2020). However, Ghanaian women, still face widely recognized inequalities identified decades ago and are often overlooked despite their significant contributions (World Bank, 2020). In agriculture, women face long-standing, persistent challenges of limited access to credit, machinery, labour, fertilizer, and agricultural extension services (Baden *et al.* 1994, Glazebrook, Noll, and Opoku, 2020), weak land tenure rights (Awanyo, 2003, Whitehead and Tsikata, 2003), and exclusion from farming practices, for example, agroforestry (Whitfield, 2005).

In rural areas, men receive five times more in wage than women, and 72% of self-employed women in agriculture are within the low-income classification, compared to 48% of men (FAO, 2012). This underscores why women pursuing agricultural livelihoods are still consistently under-resourced and enshrined in poverty. According to Glazebrook, Noll and Opoku (2020) gender bias, and socio-political marginalization of women has hampered Ghana from making any significant progress in reducing poverty with agriculture production playing a key role. Amu, (2005) and Glazebrook *et al.*(2020) reported that women farmers cannot be helped by a male-dominated agricultural extension practice which often leaves some of the women intimidated. Their studies further stated that women's limited access to extension services is aggravated because most male extension practitioners lack adequate understanding of the needs of women farmer. Therefore, it is important that more women extension workers be allocated to districts and communities where women farmers operate. This will promote productive interactions, transform women economic status, and improve their livelihood condition.

2.11. Nigeria

In Nigeria, women farmers account for 26.8% of economically active women (Fabiya, and Akande, 2015). Further, Federal statistics (1999), stated that, at that the time, approximately 73% of women farmers lived in poverty and were economically disadvantaged. This situation persists and rural women are increasingly unable to create wealth or improve their welfare and

that of their households; it is argued that at best their future can be tagged as hopeless given their current economic state (Coker *et al.* 2017). Not surprisingly, according to Ijaiya, (2000), FAO, (2010), and Abara, (2012) there is no region in Nigeria where rural women farmers command equal social and economic rights as men, despite their contribution to rural economy and active participation agricultural activities.

Nigeria's women farmers are often challenged in various ways, especially in the area of access to productive assets, the right land use right and access to agricultural extension services (Oladokun *et al.* 2018). Hence, they are vulnerable to hardship and poverty (Uduji *et al.* , 2019). Oladokun *et al.* (2018) found that women farmers still battle customs of inequality, neglect, lack of access to productive assets; they account for only 15% of land use rights, 1% of land ownership, and received only 5% of available agricultural extension services. In brief, several studies have shown that Nigeria's women farmers are disadvantaged and often confronted with economic hardship that leads to poverty, an unfavourable land tenure system and socio-cultural-economic system in which they command a smaller range of productive agricultural assets (Osemeobo, 2004; Oyerinde, 2008; Fabiyi, and Akande, 2015; Oladokun *et al.* 2018). It is proposed that effective means to reaching farm households, eliminating the biases towards rural women farmers, and closing the gender gap in input resource allocation is, among other things, to improve women's participation as extension practitioners.

2.12. Ethiopia

In Ethiopia, women's identity as farmers is still highly debated within the country agricultural development framework, although they are responsible for 40% of the country agricultural labour and play important role in agricultural production, processing, and marketing of food products (Frank, 1999; Dercon *et al.* 2009; Bayeh, 2016). According to the Ethiopia Ministry of Agriculture and Rural Development (2008), and Bayeh, (2016), women's contribution in agricultural production and productivity is less acknowledged by agricultural stakeholders and extension practitioners.

Women are still at the receiving end of inequalities that exist in the country's agricultural sector. As a result, they suffer a lack of adequate access to training, education, financial support, modern technology, extension and credit services. Hence, women farmers maintain a lower or poor economic status, and remain passive observers in the national economic development (OECD, 2008; Memar, and Solomon, 2014). McFerson, (2010) and Bayeh, (2016) attributed

women farmer's discrimination to local cultural perceptions which have largely affected their participation in the agricultural extension training activities.

Haile (2016) and Ofuoku and Ekoehi-Robinson (2018) found that agricultural extension services in Ethiopia are often male oriented and implemented with the male head of the household as the intended client. Effectively, extension services do not pay due attention to women farmers in their activities despite its leading to failure in achieving development objectives and increased economic hardship among women farmers. Given all the evidence to the contrary pointing to women being a key to sustainable development in agriculture, it is unthinkable extension programs will ever achieve their objective without the involvement and active participation of women (OECD, 2008; Memar, and Solomon, 2014). Again, this points to the need to engage more women as extension practitioners to reach women farmers and unlock their potential.

2.13. Conclusion

Women play an important role in Africa agricultural sectors, particularly in their contribution to food security. Their contribution to rural economics, agricultural productivity and activities cannot be overemphasized. Women are involved throughout the agricultural system value chains of many African countries women.

Nonetheless, their involvement in these income generating activities is often overshadowed because many of the ways they engage are invisible and/or undervalued. Their economic status is commonly characterized by perpetual struggle, deprivation, discrimination, and poverty. As they are often denied adequate access to productive resources – among them agricultural extension services that can help to facilitate their access to the training, education, credit services, financial support, and modern technology which can help improve their livelihoods and thus their economic situation. Tied to this is the understanding that the most effective extension for women farmers is women extension practitioners.

The literature reviewed and the cases examined show that gender equity is a common feature in the policy initiative of many African countries. However, implementation of these policies does not in practice appear to have effectively addressed the barriers and gender imbalances that still feature prominently and persistently within African agricultural systems and value chain. Women farmers are a latent and underutilized resource in agricultural value chains and agricultural decision-making given their current and potential contribution to production, to

food security and to family income either as farmers, wives of farmers or heads of household. They have been shown to be involved in several agricultural activities including land preparation, planting, harvesting, and marketing, most often while simultaneously being required to engage in numerous household responsibilities. However, they are still confronted with vast discrimination especially in access to land, agricultural extension services, and other productive resources. Further, women farmers are also often considered economically inactive fuelled by the perception of their roles and contributions in the agriculture value chain as being subordinate and invisible. And thus, their activities and contributions often give little expression of their true productivity.

Since women already play and potentially can play an increasingly productive role in the agricultural sectors of most African countries, it is important to enhance our understanding of their profile with the view of developing beneficial frameworks to foster the honouring of the current contribution and facilitating the realization of the potential contribution. Among the frameworks required is a framework for agricultural extension services that specifically targets women farmers and their common and unique needs, and does so by expanding the number, status, and support of women agricultural extension workers. The triple benefit is the advancement of African society to one that gives practical expression to gender equity, the strengthening of household food security, household livelihoods and local economies, and the strengthening of the whole of the agricultural sectors and their value chains.

As noted at the beginning of this chapter, this is the first of two chapters dedicated to exploring women in agriculture in Africa. This broad-based chapter sets the stage and creates the context for the more focused discussion in the next chapter on women as extension advisors.

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CHAPTER 3

Women as Extension Advisors

Johnson A. Adebayo & Steven H. Worth

Agricultural Extension and Rural Resource Management, School of Agriculture, Earth and Environmental Science, University of KwaZulu-Natal, Pietermaritzburg, South Africa

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Corresponding author: Johnson A. Adebayo Email: jaadebayo@gmail.com ORCID: <https://orcid.org/0000-0002-9464-3458>

Other emails and ORCIDs

Steven H. Worth Email: WorthS@ukzn.ac.za; ORCID: <http://orcid.org/0000-0002-3291-5542>;

Abstract

Extension plays very significant roles in enhancing agricultural production and community development initiatives in South Africa. However, sustainable agriculture, rural livelihood sustainability and food insecurity at household level are still of great concern and continue to be substantial challenges for the country's rural dwellers. While a framework for reform was developed to revitalize extension services in the country, the framework falls short in addressing gender issues in extension services. Given the significant role women play in agriculture in South Africa, this oversight compromises the effective attainment of the goals of extension. The review was undertaken to gain insight into the level of involvement of women as agricultural extension advisors and the challenges they face. Drawing from relevant published works, the paper examines the degree to which women and men jointly participate as extension advisors, with reference to South Africa. This paper argues that increased participation of women as extension advisors can help reposition agricultural extension to more effectively facilitate programs to deliver better and more direct impacts on reducing hunger and ensuring human nutrition and food security. Also, establishing women more firmly in extension advisory service would go a long way in helping to improve extension delivery of agricultural services to women farmers.

Keywords: Agricultural extension service; women extension advisors; food security; sustainable agriculture; sustainable rural livelihood; gender

3.1. Introduction

As stated in Chapter 1 and Chapter 2, this chapter is the second of two chapters dedicated to women in agriculture in Africa. Chapter 2 covered the issue broadly. This chapter focuses specifically on women as extension advisors. Both chapters have been developed as stand-alone papers for publication. Thus there is substantial repetition of some of the fundamental points related to women in agriculture. This chapter has already been published. Should Chapter 2 be accepted for publication, relevant citations will be added to ensure there is no self-plagiarism.

The important role women play in food production, agricultural transformation, rural development, and household food security has been increasingly understood in the agricultural field, as recognized by international development agencies, national governments, and researchers alike. According to the Food and Agriculture Organization of the UN (FAO, 1990a; FAO, 1990b; FAO, 1990c; FAO, 2011), women's influence on agriculture work is significant as they account for 40 % of agricultural labour in Latin America, and between 60 and 80 % in both Asia and Africa. Women in agricultural extension advisory services also have an important role to play in relation to achieving food security, sustainable agriculture, and rural livelihoods. However, women's participation as extension advisors at field- and policy-making levels is low. For example, Mali has 302 extension personnel at management level with only one woman among them, and in a survey of 70 extension advisors in Ghana, only 10 of them were female (World Bank, 2010; Manfre *et al.*, 2013). This notable gap and poor representation of women as extension advisors present a risk of hampering agricultural transformation and the overall development of the agricultural sector given that aggregate data shows that women comprise about 43 % of the agricultural labour force globally and in developing countries (Raney *et al.*, 2011; Mamun-ur-Rashid *et al.*, 2017). The risk emanates from the reality that "In many cultures, it is unacceptable for male RAS advisors to talk to women in the villages. In other societies, women simply feel more comfortable interacting with other women" (Petrics *et al.*, 2015:16).

Extension services possess significant public-good attributes. Extension services are a hub of knowledge dissemination. They are able to systematically foster the use of agronomic techniques to help farmers improve production with this ripple effect of improving rural

incomes and welfare and alleviating or at least mitigating other rural problems (Mengal, *et al.*, 2014). In this way, extension advisors serve as important catalysts for economic growth in both developed and developing countries (Aker, 2011). This adds to the imperative to establish women more firmly in extension advisory services to contribute to achieving agricultural extension goals.

As a context, this review argues the view that women's involvement in extension advisory services can accelerate achieving food security and sustainable agriculture and enhance rural livelihoods while promoting fairness in distributing extension resources among men and women farmers with particular reference to South Africa. The review, then, was designed to identify gender gaps among agricultural extension workers, and to identify more specifically some of the hindrances limiting women's involvement in extension advisory services, thereby laying a foundation for action to change the *status quo*.

3.2. Agricultural Extension

Agricultural extension is an essential service for advancing rural progress and agricultural development. It is an instrument used to enhance farming systems' sustainability, promote diversification of agricultural production systems, foster food security, and assist farmers adapt to changing markets (Saito and Weidemann, 1990; Kuyper and Schneider, 2016). However, there is no universally agreed definition for agricultural extension as its application is diverse. Anderson and Feder (2004) argued that extension's role is also one of facilitating networks connecting farmers with scientists, creditors, and consumers. Extension services transmit information to farmers to help them address their problems, and likewise transmit information on farmers' problems to research systems. This is particularly important in Africa where most households participate in subsistence farming and when a larger percentage of the farmers have little or no formal education and/or are unfamiliar with contemporary technologies (Anderson and Feder, 2004). Disseminating knowledge from researchers to farmers, guiding farmers in decision-making, stimulating desirable agricultural development, and assisting farmers to articulate their own goals and aspiration remain a vital part of extension objectives (Black, 2000; Anderson, 2004). Proposing a somewhat broader perspective, Kidane and Worth (2016:184) argue that: "ideally, extension approaches should address, in the first instance, building farmer capacity to manage his/her farming enterprise, manage the sustainability context in which that enterprise operates, and building farmer capacity to learn".

3.3. Food security, agriculture, and rural livelihoods

In the face of increasing global population, more food production is required to ensure adequate food security for all people. The demand for food will increase further especially if current trends in diets and food management systems persist (Beddington *et al.*, 2012). Complicating matters, in recent times, the world has been confronted with battles with broader food security and rural livelihoods including poor nutrition, rising food prices, a decrease in agricultural production, deficient practices of production and supply chains, and fast depleting funding for food systems research. Aside from causing global human suffering, food insecurity adds to the degradation and depletion of natural resources, leading to rural–urban migration and even migration across borders. It also contributes to political and economic instability in developing countries where the problem of poverty and inequalities are well pronounced (Beddington *et al.*, 2012; Rodríguez-Pose and Hardy, 2015). Africa, Asia, and Latin America are hard hit by extreme poverty and food insecurity. In Africa, improvement in rural development, sustainable agriculture, food insecurity and the eradication of poverty has been at its lowest in decades. Africa, as a whole, has achieved less tangible or poor headway in addressing livelihood sustainability; a notable portion of the population throughout the continent experience high rates of poverty and hunger (Rodríguez-Pose and Hardy, 2015; Naylor, 2011; Godfray *et al.*, 2010; Ahmed *et al.*, 2007; Carvalho, 2006). The FAO (2012) projected that a 60 % increase in agricultural production will be required by 2050 to match the food demand of the growing population. This increase would come mainly from an increase in crop yields (80 % increase globally), in cropping intensity (10 %) and the rest from a limited expansion of land use. Thus, developing agriculture remains a key component to improving food security and alleviating poverty.

World Bank development indicators (2007) envisage that a staggering 1.2 billion poor people will live out their lives in rural communities, accounting for 75 % of abject poverty worldwide. While agriculture remains an essential tool for rural livelihood sustainability, rural people are seeking diverse avenues to increase their income and improve their living conditions including better health, nutrition, and education. Hence, the livelihoods of rural people are not built only on agriculture but on different occupations and enterprises (Chapman and Tripp, 2004). Poor rural men and women engage in diverse economic activities to minimize vulnerability and risk while maximizing income generation, thereby bettering their chances of survival and achievement of their household goals (Lakra *et al.*, 2014).

However, agricultural development remains a critical pillar of food and nutrition security across developing nations; it facilitates a transformation of rural economies and is a primary income source for most impoverished people around the globe. The sustainability of rural livelihoods and attaining food and nutrition security for all (now and in the future) depend on agricultural development that contributes to improving resource efficiency, strengthening resilience, and securing social equity (Legg, 2017; Ndlela and Worth, 2021). In South Africa, as in the rest of the developing world, the agricultural sector is a key provider of on- and off-farm employment and livelihoods and is considered a key instrument to reduce poverty – in both sub-urban and rural areas of the country. Therefore, creating growth and sustainability in the agriculture sector will serve to improve rural livelihood systems and ensure food security at national and household levels (ARC, 2011).

3.4. The role of agricultural extension in achieving food security, sustainable agriculture, and sustainable rural livelihoods

Agricultural extension structures play a very important part in promoting agricultural production and developing community-level initiatives and have great potential for improving food and nutrition security and sustainable rural development across the globe (Rivera *et al.*, 1997; Shalaby *et al.*, 2011). Extension operations have become increasingly important in working out viable solutions to confront the challenges of underwhelming yield, poor soil conditions, low water availability, crop insect-pest attacks, outbreaks of crop diseases, poor marketing outlets – all of which impact on food and nutrition insecurity. The extension framework involves identifying suitable and adaptable solutions to support farmers in sustainable agricultural practices (Al-Shayaa *et al.*, 2012). Extension has the added, perhaps primary, responsibility of building farmer capacity to manage the technical, business and environmental aspects related to their farming enterprises (Worth, 2009; Ndlela and Worth, 2021) in the context of addressing the aforementioned challenges.

In recent times there has been a shift in extension: for decades extension was defined by technical innovations to increase yield and reduce costs. More recently, extension has evolved to embrace holistic farm management, rural development, youth, and home economics, among others (FAO and ISRIC, 2010). This changing role of agricultural extension is aimed not only at promoting food and nutrition security but at the wider objective of improving rural livelihoods through efforts to make them more sustainable, specifically among those who are dependent primarily on agriculture (Chikaire *et al.*, 2011). This suggests that efforts to achieve

high-level goals of international security and global development would benefit from giving greater attention to and enhancing the role that extension services play in food and nutrition security, sustainable agriculture, and sustainable rural livelihoods. One area of attention is the need to ‘reinvent’ extension and its activities beyond their historical role of simple technology transfer to farmers, to active involvement of extension advisors at every level of planning and policymaking (FAO and ISRIC, 2010, Naylor, 2011; Chikaire *et al.*, 2011). Using its considerable first-hand information, this will enable extension to help ensure that policies and development planning are relevant to the very farmers the policies and plans are meant to assist.

In the specific context of engaging with farmers, the role of extension services and their officers must be broadened to facilitate such processes that will be beneficial all categories of farmers. It is increasingly evident that farmers require more than just information and technology, based on the analysis of fast changing agricultural sectors globally and in South Africa (ARC, 2011). Among these, as a key example, is “innovation management” including “developing networks, organising producers, communicating research needs, mediating conflicts, facilitating access to credit, inputs and output services” and other functions related to innovation (Sulaiman and Davis, 2013:5-6).

Despite agriculture’s declining contribution to the South Africa’s national GDP, and perhaps because of it, its importance to the lives of people in the rural communities and families cannot be overemphasized as it is considered an integral part of South African life (Worth, 2012). Extension services must, therefore, be actively and fully engaged to maximize their role as the drivers of economic development, leading to reducing and ultimately eliminating poverty particularly among smallholder farmers. To do otherwise will serve only to further marginalize this already marginalized sector of the population given the range of challenges they face (Worth, 2012). A steady decline in land-to-person ratios, stagnant food crop productivity and inequitable land distribution are some of the challenges confronting agriculture, particularly resource-constrained farmers in South Africa and other African countries (Jayne *et al.*, 2010). Although the amount of arable land under cultivation has risen marginally, the population of households engaged in agriculture has tripled (FAO, 2006; Jayne *et al.*, 2010). This has caused a steady decline in the ratio of arable land to agricultural population in Africa. According to Christoplos (2010), the huge challenges confronting African agriculture require that extension advisors be fully involved in the system that facilitates the access of farmers organizations and other market actors to relevant knowledge and technologies, and interact with partners in agri-

business, education, research, and other relevant organizations. Such extension advisors can actively assist farmers to grow and develop the required technical, organizational and management skills and to participate in their own human capital development. Of particular importance is “shifting the focus from access to markets to ownership of markets by smallholder farmers” (Steven Worth, personal communication, 25 March 2022).

3.5. Gender in Agricultural Extension

Agriculture remains a sector with gender imbalances: stark gender inequalities prevent women from having equal access to assets, services and inputs, and women are often exposed to prejudice in rural labour markets (Duban *et al.*, 2016). Research shows that when women are not active participants in decision-making and employment, this imbalance and negligence in addressing gender-based differences often results in disparities in development (Dayanandan, 2011; Nyasimi and Huyer, 2017). Gender issues must receive adequate and genuine attention particularly in the agricultural sector precisely because the vast gender imbalance in the access to and control of resources creates conflict, fosters exclusion, which together undermines the very sustainable development of the sector so often proposed in policy (Dayanandan, 2011).

3.6. Gender in Agricultural Extension Globally

In every field of life, including agricultural extension, women stand side by side with men. However, women’s prospects have not been fully explored, and their services and capabilities are not equitably rewarded (FAO, 2019; Khursheed *et al.* 2020). Despite their important role and extensive contribution to agricultural production and food security, women extension advisors and village level paraprofessionals (indigenous people who work as change agents at a village level) are poorly incorporated into mainstream extension activities and operate on an unequal basis with men (FAO, 2019). They are often said to be under-paid as compared to their men counterparts (FAO, 2019). According to Kilic *et al* (2015), the sources of gender gaps vary across developing and developed countries. In its cross-country survey of 97 countries, FAO (1993) found that only 15 percent of extension advisors across these countries were women. The low educational status of women in extension, where most women have a diploma or lower, has been identified as a key challenge that hinders women from their effective participation in agricultural extension. (Colgan and Ledwith, 1996; Dayanandan, 2011; Hora, 2014). In Pakistan, Khursheed *et al* (2020) reported that women are often judged not to do their job efficiently as compared to men; a circumstance which they believe is triggered by cultural

and social constraints that affect women extension advisors' performance resulting from male-dominated societies that do not accept women's status as workers. This situation occurs in many countries and appears to be sustained by two factors. First, traditional gender biases and prejudices impose barriers on women limiting their access to education that would qualify them to work in extension as well as diminishing their acceptance in the workplace if they are appointed. Second, employing men is given preference to appointing women and when they are employed, women are expected to maintain and are often overburdened with, domestic responsibilities. These conspire to compromise performance of women and rob them of gaining the experience necessary for taking part in agricultural extension activities (Colgan and Ledwith, 1996; Dayanandan, 2011; Hora, 2014). Therefore, given the importance of extension services to achieving the aims of agricultural developmental policies and programs, and given the structural bias against women even in the face of the unique contribution they can make in extension, there is need for fairness in representation, participation, and benefits afforded to women and men (Cohen, and Lemma, 2011). At the very least, this includes committing extension resources to men and women farmers equitably (Dercon *et al*, 2009; Lemma, 2011; Croppenstedt *et al*, 2013). But it may require more than merely treating women equally. It likely requires more careful consideration of the issue of redress. As argued by Villa and Smith (2008:58) policies intended to create equality for women are often insufficient to address the gender issues or are not mainstreamed and "will at best have a neutral impact on women and at worst negative impact on gender equality ". Similarly, Kapur (2007: 281) warns against gender neutral policy which by design ignores the unique requirements and historical disadvantage of women. She notes the challenge that, "failure to take difference into account will only serve to reinforce and perpetuate the difference and the underlying inequalities". In short, ensuring genuine equality may require addressing specific issues unique to women extension advisors.

3.7. Gender in Agricultural Extension in South Africa

Gender equity and women's empowerment features prominently in South Africa's Constitution, demonstrating the ambition of the country to achieve gender balance throughout society. However, despite these transformative national policies, South African institutions still face gender inequalities. In the agricultural sector, women farmers struggle to achieve equal representation and access to information and resources, compared to male farmers (Simmonds, 2014; Loots and Walker, 2015; Lamontagne-Godwin, 2019). Studies (Ngalawa and Derera,

2020; New Agriculturist, 2020) show that there are approximately 2.7 million farmers in South Africa of which the majority are women subsistence farmers, who are often marginalized and vulnerable in society. Masuku (2013), Van den Berg (2013), Simelane (2017), and Abegunde et al. (2019) all noted that in South Africa, farming, especially small-scale farming, is primarily practiced by women. For example, Masuku (2013) shows the percentage of women involved in farming in KwaZulu- Natal municipality (63 %) to be substantially higher than men (37 %). This position is consistent with Simelane (2017) and Jozini's Integrated Development Plan Report (2016:24), which shows the number of female farmers to be higher (54 %) in South Africa.

During colonialism and apartheid, the role of women was seen as minor and irrelevant, especially with respect job opportunities and allocation (Zwane *et al*, 2017). This position changed, however, with the creation of a new constitution and democratic elections when greater opportunities for women to pursue any chosen career path began to emerge. Despite this, women's participation in agricultural extension advisory services across South Africa is still low, indicating a vast gender disparity (Zwane *et al*, 2017). Mmbengwa *et al* (2009), in his study in South Africa reported that South African women extension advisors are better educated and more exposed to management than their male counterparts. However, concurrently, women extension advisors are generally lagging behind compared to men in terms of the important marketing knowledge and exposure required for a sustainable farm practice. To bridge this knowledge gap, the exposure of women extension advisors to marketing must be considered (Mmbengwa *et al*, 2009). Additionally in South Africa, women extension advisors reported that their agricultural training level or exposure is inadequate, stating that inadequate training constitutes a major barrier in the delivery of their extension services contributing to the challenges of food insecurity, rural livelihoods, household poverty and the challenges facing farmers in South Africa today (Raidimi and Kabit, 2017). There is, therefore, an urgent need to develop a useful capacity building model that features and prioritizes women extension advisors as implied by Kapur (2007). Attending to this need will help to ensure the empowerment of women extension advisors in a way that promotes the productive and effective delivery of their extension services to farmer and enhancing the overall performance of the entire extension service.

3.8. Demographic Distribution of Agricultural Extension Officers in South Africa

Table 1 and Fig. 1 show the demographic distribution of agricultural extension advisors across the different provinces in South Africa. According to the Department of Agriculture, Forestry and Fishery (DAFF) (2007), there were at the time approximately 2,210 extension advisors nationally of which 603 (27 %) were female and 1,607 (73 %) were male. Currently, seven of the nine provinces are male dominated; however, there is a 50/50 gender ratio in the case of KwaZulu-Natal, suggesting that female extension advisors may be well represented in that province. DAFF further revealed that among all the provinces, Limpopo, Eastern Cape and KwaZulu-Natal had the highest number of extensions advisors with 666, 623 and 360 respectively, while Gauteng and the Northern Cape had the lowest, with 29 and 23 respectively (Fig. 1). A fair personnel distribution of age groups between 21 and 55 years was evident in all the provinces. Based on years of experience, it was suggested that female extension advisors retired earlier than their male counterparts. DAFF (2007) further presented that more than 80 % of management related positions were occupied by males, despite females being more educated than their male counterparts in seven of the nine provinces (men had higher educational qualifications from Gauteng and Free State).

Table 2. 1: Extension Officers by Province and Gender in South Africa

Province	Number and Percentage of Extension workers				
	Female	%	Male	%	Total
Eastern Cape	137	22,0	486	78,0	623
Free State	20	28,6	50	71,4	70
Gauteng	12	41,4	17	58,6	29
KwaZulu-Natal	180	50,0	180	50,0	360
Limpopo	139	20,9	527	79,1	666
Mpumalanga	72	39,3	111	60,7	183
Northern West	15	10,9	122	89,1	137
North Cape	3	13,0	20	87,0	23
Western Cape	25	21,0	94	79,0	119
Total	603	27,3	1607	72,7	2210

Adapted from DAFF (2007) and Worth (2012)

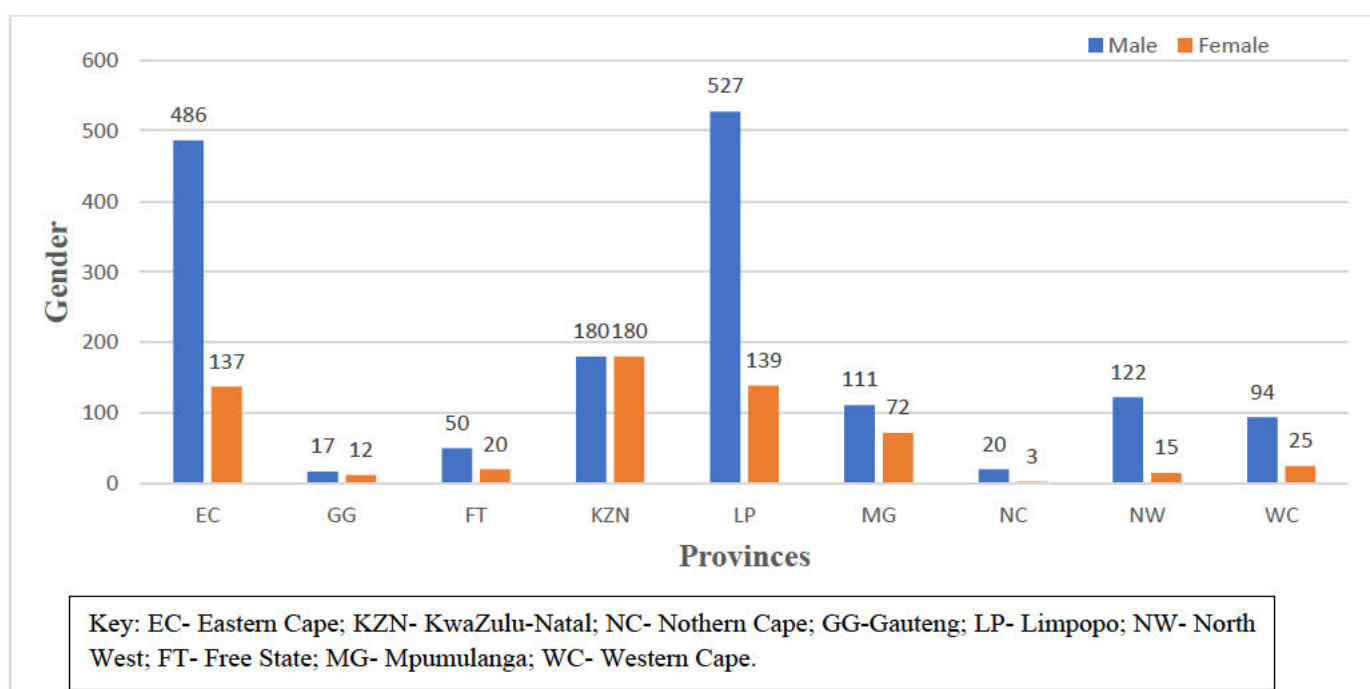


Figure 2. 1: Extension Officers by Provinces & Gender in South Africa
Adapted from DAFF (2007) and Worth (2012)

3.9. Role of Women as Extension Workers and in Driving Food Security

Involving and empowering women in different activities has been recognized as a key factor in improving development, particularly in developing countries (Burroway, 2015). Their role as extension advisors can help boost agricultural productivity which is, and will continue to be, a cornerstone for African economies (Msuya *et al.*, 2017). Women are deemed natural leaders due to their ability to use a more participatory and inclusive style of leadership, while men tend to use a more directive and controlling style, indicating that women tend to have more transformational leadership capacity compared to the more transactional leadership style of men (Moore and Rudd, 2006; Kim *et al.*, 2007). In this way, operating extension activities without the input and active involvement of women extension advisors and women farmers would have negative impacts on agricultural production, women and their families in terms of food security, rural livelihoods, sustainable agriculture and economic development (Manfre *et al.*, 2013).

Alongside men, women cultivate food crops both for subsistence use and on a commercial basis. They also manage livestock, are engaged in fishing and harvesting from the forest. They play an essential role in the translation of agricultural production into food and nutrition security for the well-being of their households, communities, and nations (Hill, 2011). Despite their enormous involvement in the agricultural value chain, it has been observed that the larger percentage of extension advisors is predominantly men, while the agricultural workforce is predominantly women. Insufficient women extension advisors are often mooted as a challenge to improving extension delivery of agricultural service to women farmers and achieving a food secure society (Mamun-ur-Rashid *et al.*, 2017). Specifically, Farnworth and Colverson (2015) posited that partnership between men and women farmers in farm activities would create greater empowerment for men and women. They emphasized that targeting both genders within a household can make agricultural extension programs more cost-effective and more productive. To confront and attend to gender in agricultural extension because of the contribution of gender inequalities to global hunger and food insecurity, increasing the number of women extension advisors may help a great deal. A key aspect of this will be to help overcome cultural barriers in communication between men extensionists and women farmers (Shibanda and Seru, 2002; World Bank 2009; Njuki, Parkins, and Kaler 2016; Diaz and Najjar, 2019). Further, women extension advisors can play a crucial role in promoting and reinforcing policy and regulatory frameworks for food, agriculture, fisheries, and forestry (Diaz and Najjar,

2019; Rivera and Qamar, 2003). They can also contribute to decision-making by providing information and assessments, fostering knowledge management for food and agriculture, and promoting technology adoption among women farmers (Lecoutere *et al.*, 2020; Diaz and Najjar, 2019; Rivera and Qamar, 2003). The gender of extension advisors can be an essential part of this context.

3.10. Role of Women Extension Workers in Driving Sustainable Agriculture

Women are often regarded as organizational and social change agents as they possess attributes such as interpersonal skills, teamworking, negotiation and being able to handle several projects at a time – all of which may be regarded as useful attributes for promoting a sustainable framework in any organization. In addition to having these natural skills, women have also become increasingly well qualified and their ways of organizing and managing resources would be more appropriate to driving sustainable agriculture (Colgan and Ledwith, 1996; McHugh, 2012). Women represent an essential stakeholder in the agricultural sector, yet they are disadvantaged in several areas, including their lack of or low educational levels that are often a hinderance to occupying various employment positions (URT, 1997; ILO, 2007). Given that agricultural institutions continue to be men dominated, there is a need to explore how the inclusion of more women in agricultural extension can help ensure sustainable agriculture (Garforth and Lawrence, 1997; Sachs *et al.*, 2016).

Agricultural sustainability aims for the sustainable production of healthy and ample food for both the present and the future through the wise use of natural resources (Al-Subaiee *et al.*, 2005) that ensures the protection of land, water, plant and animal genetic resources, and using operations that are environmentally non-degrading, technically appropriate, economically viable and socially acceptable (Lockeretz, 1990; Schaller, 1998; Al-Subaiee *et al.*, 2005; and FAO, 2014). Empowering women agricultural extension advisors may be highly beneficial in driving and ultimately achieving sustainable agricultural development as their work can help to promote the wider recognition and participation of women within the diverse activities of agriculture. The World Food Program (2002) determined that women represent the channel through which food security and sustainable agricultural development can be actualized.

3.11. Role of Women Extension Workers in driving Sustainable Livelihoods

Agricultural extension has an important role to play in achieving sustainable livelihoods and several learning frameworks have been derived (Worth, 2006). Extension represents a gateway

of information and technical knowledge to smallholder farmers and recognizing the low literacy levels among smallholder farmers, extension advisors will continue to be essential in Africa (Msuya *et al.*, 2017). Women's input, (including women extension advisors) in the pursuit and actualization of current and future sustainable livelihood transformation and choices is thus critical (Minarovic and Mueller, 2000; Harriss-White and Heyer, 2009). Chambers and Conway (1992) stress the importance of sustainable livelihood strategies in maintaining natural resources. This is applicable at various levels and groups such as individual, women extension advisors, village, regional, household, extended family groupings, or even a country. It can further be applied within rural (Scoones, 1998) and urban contexts (Rakodi and Lloyd-Jones, 2002; Kpoor, 2019), although living conditions in urban centres provide a clearly different experience from living conditions in rural communities. Regardless of where people reside, they generally have the same needs and share alike a quest for franchise, agency and benefit (de Haan *et al.*, 2002; Kpoor, 2019). In either urban or rural settings, people require assets, income, clothing, shelter, health care, education, skills, and social support to promote their healthy living. As such, empowering women extension advisors can contribute to this by fostering a sustainable increase in the supply and availability of food and rural livelihood improvement, supporting the conservation, improvement, and sustainable use of natural resources for food and agriculture. Incorporating women extension advisors into the pursuit of sustainable agricultural extension aims and objectives not only tends to enhance the lives of women but also that of society, as their empowerment and involvement can have a direct impact on reducing hunger, ensuring sustainable rural livelihood, and promoting human nutrition and food security in Africa (World Bank, 2011; UNDP, 2012; Conceição *et al.*, 2016).

3.12. Women in Agricultural Extension: Key Learning Points

Women in agricultural extension advisory services have key and significant roles to play in relation to the design, operation and achievement of food security, sustainable agriculture, and rural livelihoods. The following are some key learning points drawn from a review of diverse literature.

- Gender inequalities are visibly evident and dominant in the agricultural sectors given the discrimination women experience in the rural labour market, and their poor input and limited access to assets. Failure to address these disparities can mar development outcomes both in agricultural extension and, more generally, where women are not well

represented in employment ratios and decision-making bodies (DAFF, 2007; Duban *et al.*, 2016).

- For most parts of the world, the vast input of women to the development of the agricultural sector, particularly its extension systems, does not attract the deserved recognition and is poorly documented compared to their men counterparts (FAO, 2019).
- Women farmers generally prefer working with women extension advisors and in many parts of the world it is culturally more acceptable (Petrics *et al.*, 2015).
- In South Africa, equal privileges exist for women to pursue any career path of their choice. Nonetheless, women's participation in agricultural extension advisory services across the provinces is still drastically low, indicating a vast gender disparity (Zwane *et al.*, 2017).
- Given the importance of agricultural extension services to addressing challenges of food insecurity, rural livelihoods, household poverty and the challenges facing farmers in South Africa today (Raidimi and Kabiti, 2017), there is urgent need to encourage the participation of women agricultural extension advisors and village-level para-professionals in the developing the agricultural sector, and incorporate them into mainstream extension activities on an equal basis with men (Ogato, 2013).
- Increasing the role of women as extension workers can help to boost agricultural productivity which is, and will continue to be, the economic cornerstone for African countries, recognizing its considerable input into the local and export earning of these countries (Msuya *et al.*, 2017).
- Executing extension activities or priorities without the participation of female extension personnel and female farmers risks having negative impacts on the attainment of food security, rural livelihoods, sustainable agriculture and economic development (Manfre *et al.*, 2013).
- Across many Africa countries, it has been observed that a larger percentage of extension personnel are male, while the agricultural work force are predominantly female farmers. As such, insufficient female extension officers is often mooted as a challenge to improving extension delivery of agricultural services to women farmers and achieving a food secure society (Mamun-ur-Rashid *et al.*, 2017).
- Women in developing countries are pivotal to global food security, rural livelihoods and the agricultural system at large (FAO, 1998); therefore incorporating female

extension workers in the pursuit of agricultural extension aims and objectives not only tends to enhance the life of women but also that of society, as their empowerment and involvement can have a direct impact on reducing hunger and ensuring human nutrition and food security in Africa (World Bank, 2011; Conceição *et al.*, 2016; UNDP, 2012).

- Given that agricultural institutions continue to be male dominated, there is a need to explore how the inclusion of more females into agricultural extension can be facilitated to help promote more sustainable agricultural development (Garforth and Lawrence, 1997; Sachs *et al.*, 2016).

3.13. Conclusion

Extension services possess significant public-good attributes given their services are a hub of knowledge dissemination and their ability to systematically use agronomic techniques to improve rural populations' income, welfare and alleviate problems. Agricultural extension is an essential service for advancing rural progression and agricultural development. Agricultural extension advisors provide support to farmers to increase agricultural productivity, food security, and improve sustainable rural. However, as discussed, this review reveals that women's participation as extension advisor at the field and policy making levels is low. A large percentage of extension advisors are men, while the agricultural work force are predominantly women farmers. This is true across Africa; South Africa is no exception, where only 27.3 % of extension advisors are women, while subsistence farmers are predominantly (54 %) women.

As such, it is posted that insufficient women extension advisors are a challenge to improving extension delivery of agricultural services to women farmers and achieving a food secure society. Considering the important role women play in food production, agricultural transformation, rural development, and household food security; including women in the design and operation of agricultural extension can serve as an effective tool in driving and achieving agricultural goals which are the goals of agricultural extension. It is imperative, therefore, to establish women more firmly in extension advisory services to contribute to achieving these goals.

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CHAPTER 4

Constraints confronting women extension advisors: A case study from DARD Extension Advisors at uMgungundlovu District of KwaZulu-Natal, South Africa

Johnson A. Adebayo & Steven H. Worth

Agricultural Extension and Rural Resource Management, School of Agriculture, Earth and Environmental Science, University of KwaZulu-Natal, Pietermaritzburg, South Africa

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Corresponding author: Johnson A. Adebayo Email: jaadebayo@gmail.com ORCID: <https://orcid.org/0000-0002-9464-3458>

Other emails and ORCIDs

Steven H. Worth Email: WorthS@ukzn.ac.za; ORCID: <http://orcid.org/0000-0002-3291-5542>;

Abstract

The availability of competent extension advisors and service support is considered a critical factor to ensure a successful agricultural sector that promotes economic progression, maximum farming productivity, and household food security. Extension advisors need capacity development to enable them to contribute substantially to agricultural innovation. This study, conducted in KwaZulu-Natal, South Africa, investigated the working conditions of women extension advisors and the different challenges affecting their productivity. Data were collected through semi-structured interviews with 20 respondents, comprising one provincial director of extension and advisory service, one district director of extension advisory, and three deputy directors of extension advisory services, selected by purposive sampling, and 15 women frontline extension advisors. The study found that women are in the majority of the extension advisory service at uMgungundlovu District of KwaZulu-Natal. The study also found that these women extension advisors encounter diverse challenges such as functional skills, security threat, poor resources allocation, and extension-farmer relationships faced by the women extension advisors. These challenges hinder productivity, negatively impacting farmers' household livelihoods. It is, therefore, important to ensure that the unique challenges faced by women extension advisors are addressed and that skills appropriate to their unique role in extension are developed so that they are able to contribute more effectively to addressing the current and future challenges of farmers – in particular women farmers.

Keywords: agricultural extension, women extension advisors, women status, challenges

4.1. Introduction

South Africa has the second largest economy in Africa, and the robust contribution of the agricultural sector is crucial to the country's economic development. The contribution from the agricultural sector serves as one of the backbones of the strength of South Africa's economy (Boshoff and Fourie 2020). It helps to reduce inequalities by increasing incomes and employment opportunities for the poor, while nurturing natural resources (Oladele 2015; Maoba 2016; Raidimi and Kabit 2017). According to Musvoto *et al.* (2015), the South African agricultural sector employed an estimated of 709 000 people, and around 8.5 million people are said to be directly or indirectly reliant on agriculture for their employment and/or income. In its vision of 2030, South Africa's National Planning Commission (NPC) posits that agriculture has the potential to generate one million jobs by 2030 . However, DAFF (2014) and Boshoff and Fourie (2020) argued that in recent times, employment in the agricultural sector has been on the decline leading to reduced food security at the household level. Thus, achieving a successful agricultural sector that contributes meaningfully to economic progress, optimum farming productivity, and household food security will require the availability of competent extension advisors and service support, which, together, are considered a crucial part of the solution (Davis and Terblanche 2016; Baiyegunhi *et al.*, 2019).

Several researchers, including Davis *et al.* (2012), Hamilton and Hudson (2017), Baiyegunhi, and Majokweni and Ferrer (2019), have also identified agricultural extension services as a critical tool for the promotion of agriculture and rural development. According to these authors, agricultural extension advisors and their services play a central role in strengthening the resilience of peasant/smallholder farmers. Extension advisors facilitate information and knowledge dissemination, better technology choices, diversification of farming activities and increase farmers' access to tangible and intangible resources, such as quality inputs that are essential to increasing agricultural productivity (Wossen *et al.* 2013; Elias *et al.* 2013; Baiyegunhi *et al.*, 2019). Extension advisors are also key to building the capacity of farmers to manage their farming enterprises, manage the sustainability context in which their enterprises operate, and manage their own learning in the context of innovation and engaging with scientific enquiry (Abdu-Raheem and Worth 2016).

However, for extension advisors to contribute meaningfully, extension advisors need capacity development at individual and organizational levels (David and Samuel 2014). This is

especially true in South Africa where the state is the main provider of agricultural extension services delivery. An estimated four million people are said to be involved in subsistence and commercial agriculture and need extension support (Aliber and Hall 2012). Several studies have reported that government extension is being constrained in several areas – notably facilitating land reform, securing financial support, and promoting initiatives that enhance smallholder farmers’ development (Raidimi and Kabiti 2017; Baiyegunhi *et al.* 2019). According to Raidimi and Kabiti (2017), meeting the extension goals of achieving household food security, improved rural livelihoods, and improved resource management is becoming more difficult and unattainable. Another factor contributing to the inability to meet extension goals is the low participation of women, and other gender disparities in the agricultural extension advisory services across South Africa (Zwane *et al.* 2017), which is common in many African countries (Manfre *et al.* 2013; Beintema and Stads 2019). According to the demographical distribution of agricultural extension advisors compiled in 2007 by the South African Department of Agriculture, Forestry and Fishery (DAFF), cited by Worth (2012), there were approximately 2,210 extension advisors nationally, of which 603 (27%) were female, and 1,607 (73%) were Male. Male extension advisors are predominating in eight of South Africa’s nine provinces. The one exception is KwaZulu-Natal, where female extension advisors are more equitably represented – comprising 50% of the extension advisors’ complement.

This configuration is consistent with Ogato (2013), who found that smallholder farmers in Africa are predominantly women, whereas the majority of agricultural extension practitioners are male.

This study aimed to explore gender issues in public sector agricultural extension in South Africa. Specifically, the study identifies the constraints and challenges confronting women extension advisors employed by the Department of Agriculture and Rural Development uMgungundlovu District of KwaZulu-Natal and reflects on the working condition of women extension advisors, including their skill sets and professional development in the context of their productivity, cultural restrictions or limitations, issues of sexual harassment, threats while working in the field, any unique challenges or opportunities in relating with men and women farmers, and their access to knowledge about and familiarity with modern agricultural technology.

4.2. Agricultural Extension in South Africa

The South African agricultural extension sector is dominated by the public extension service operating as a provincial competency. The national policy prioritizes support for smallholder farmers as the primary recipients of public sector extension services. Generally, such farmers cannot afford private extension services (Baiyegunhi *et al.* 2019; David and Samuel 2014; Aliber and Hall 2012; Ngomane, Thomson, and Radhakrishna 2002). Despite operating as a public good, there is a need to transform the public extension system in South Africa. The current agricultural extension service needs to be geared to satisfy the needs of resource-poor smallholder farmers to enable smallholder farmers to break away from the bondage of poverty and household food insecurity (Ngomane 2021).

The Global Forum for Rural Advisory Services (GRFRAS) (2020) reported in their survey that the South African extension service was founded in 1925, with six extension officers charged with the task of circulating existing knowledge and new research findings to the farming community. This extension service was initially divided into three different sections with one each to serve the white, the black and the coloured farmers (Terblanche 2013). However, after 1994, the existing status quo of extension was altered. The racially divided services were merged into one extension service, which was tasked with meeting the needs of subsistence and commercial farmers of all races. Currently, one national-level Department of Agriculture and nine provincial Departments of Agriculture (Davis *et al.* 2021); being a provincial competency implies that there are effectively nine public extension services, each with its own political head, each with its development agenda with varying degrees of alignment to national agricultural policy (Worth 2012). This makes fundamental change all the more challenging.

The South African government views extension and advisory services as a crucial component of its development planning; it is considered key to improving productivity and profitability in agriculture which is a key factor in developing stable and resilient rural communities (Davis *et al.* 2021; DALRRD 2020). It is argued that extension and agricultural education in South Africa are currently facing a crisis of stagnation because agricultural practices are evolving, and farmers need a different kind of support than they have been receiving in the past (Davis and Sulaiman 2014; Davis *et al.* 2021). There is a need for internal reformation of extension, and new approaches must be adopted for extension services to remain relevant (Davis *et al.* 2021; Landini *et al.* 2021).

In 2005, the government of South Africa, through DAFF, released an official Norms and Standards for Agricultural Extension to address the lack of a national framework. This was also created to respond to the fundamental changes needed to create a unified service, focusing on the needs of both small scale and commercial farmers, with the aim to break down the artificial divide between the first and the second economy (DOA, 2005: iv; DALRRD 2020). In 2007, the government initiated the Extension Recovery Plan with five operating pillars: recruitment, training, information and communication technology, professionalism, visibility, and accountability. The aim was to address the perceived weakness in the extension and advisory services (DAFF 2007; McIntosh Xaba and Associate 2017). In 2016, the first national policy for agricultural extension was published to bring greater coherence to the extension and advisory services and providing a common framework and principles for service delivery (DAFF 2016; Davis *et al.* 2021). In the same vein, in 2021 the newly formed Department of Agriculture, Land Reform, and Rural Development (DALRRD) began updating and expanding the national Norms and Standards for Agricultural Extension – originally promulgated in 2005 – to align extension and advisory services to the present needs of South African farmers (Davis *et al.* 2021).

4.3. Current Status of women extension advisors in South Africa

Almost 75% of the extreme poor in Sub-Saharan Africa (SSA) live in rural areas and over 90% of them are involved in agriculture in Sub-Saharan Africa (SSA), and this accounts for about one-third of the Gross Domestic Product (GDP) of SSA countries (Carletto *et al.* 2013; Agholor 2019). Two-thirds of the SSA population depend mainly on agriculture for income (World Bank 2013). DAFF (2007) and Adebayo and Worth (2022) revealed that among all the provinces, Limpopo, Eastern Cape and KwaZulu-Natal had the highest number of extensions advisors with 666, 623 and 360 respectively. However, despite its significance, SSA's agricultural potential is not realized; its share of the global agricultural market has decreased for 40 years (World Bank 2013; United Nations (UN) 2013; Agholor 2019). Poor investment, inadequate recognition by policymakers, and gender bias are central causes for this (Carletto, Jolliffe and Banerjee 2013; Agholor 2019). And yet the World Bank (2010: xxv) argues that “Providing better services to women is not only necessary for them to be able to realize their rights, it is also essential to promote development and to use agriculture for development”.

The persistent gender gap and bias in farming activities and extension involvement is a major obstacle to agricultural growth and development in Africa, including South Africa (Agholor

2019). According to FAO (2011), women farmers' access to resources falls behind that of men, significantly hampering their productivity. One of those resources, it is argued, is agricultural extension. It is further argued that women farmers need support from women extension agents. Lamontagne-Godwin *et al.* (2019:268) posited that “the rise of the patriarchal agricultural revolution system has created gender inequalities across a variety of professional and social spheres”. They noted that even in the effort to implement gender-sensitive agricultural policy, the results tend to favour male farmers. They found that male extension workers may not fully appreciate the requirements of women farmers and emphasized the potential of a “female-led lead farmer approach”.

Worldwide, women are under-represented as extension agents (Lamontagne-Godwin *et al.* 2019). Further, as reported by Farnworth and Colverson (2016: 22), despite increased attention to it, universal extension “coverage oriented to the specific needs of women farmers remains stubbornly out of reach”. Additionally, while it is understood that “Providing economic services, such as agricultural extension, is essential to using agriculture for development”, the ability to do so for women farmers is greatly hampered by the persistent bias against the role of women in agriculture (World Bank 2010:1). This is the case in South Africa where despite the constitutional guarantee of equality, women, especially black women, still find participation in development processes still inaccessible (World Bank 2010) and “local authorities...may resist granting women access to land or allowing women to participate in decision-making bodies” (World Bank 2010: 30). Ngomane (2021:12) confirms South African women farmers still face many constraints in accessing agricultural extension such as “socio-cultural, lack of access to credit, the challenge of balancing paid and unpaid care work with farming, and women’s low literacy rates.” Thus, it is a double problem – women farmers and women extension agents have many challenges to working together. The data presented here relates to the investigation of this in the uMgungundlovu District Municipality in KwaZulu-Natal, South Africa.

4.4. Methods

The study was conducted in the uMgungundlovu District Municipality of KwaZulu-Natal Province. The municipality comprises seven local municipalities the largest of which is the provincial capital, Msunduzi. It has an estimated population of 1,095,865 million people, 52%

female, 58% male. It covers 9,603 m² and has a population density of about 110 per km² with 58% living within urban settlements, 38% living within rural settlements and 9% living in small holdings on various farms (Department of Cooperate Governance and Traditional Affairs 2020). Overall, the district has substantial agricultural land potential. Most of the agricultural land is committed to commercial farming. The uMgungundlovu district is considered the agricultural hub of KwaZulu-Natal, (Department of Cooperate Governance and Traditional Affairs 2020). In terms of this study, uMgungundlovu, which houses the university from which the study was conducted, presented as both accessible and relevant to the aims of the study.

A qualitative approach in the form of a study case was used for this study. According to Dooley (2002) and Alotaibi *et al.* (2021), a case study is an effective method for evaluating and verifying the quality of a study. It provides a means to strengthen the research findings (Alotaibi *et al.* 2021) It is also used to conduct an intensive study of data sources in qualitative research to develop a comprehensive understanding of the study (Yin, 2011).

The data was collected through semi-structured interviews with 20 respondents. Five of these respondents included one provincial Director of Extension and Advisory Services, one district Director of Extension and Advisory Services and three Deputy Directors of Extension Advisory Services. All were selected using a purposive sampling method. Additionally, 15 females' public extension practitioners from the KwaZulu-Natal Department of Agriculture and Rural Development (KZNDARD), uMgungundlovu District, were selected through purposive sampling. Purposive sampling allows the selection of information-rich respondents (Abdu-Raheem and Worth 2014; Patton 1990), with distinct attributes or features applicable to the subject of this research (Abdu-Raheem and Worth 2014). Also, purposive sampling allowed for the deliberate selection of individuals or groups of individuals that are proficient and well-informed with a phenomenon or characteristics of interest relevant to the objectives of this research (Bernard 2002; Cresswell and Plano Clark 2011; Etikan *et al.*, 2016).

Using a process similar to snowball sampling (Parker and Geddes 2019), the district director and assistant district directors of agricultural extension and advisory services were specifically selected through a recommendation from the provincial director of extension services. The extension advisors were also selected through recommendations from one of the assistant district directors. The assistant district director released the contact details of 36 extension advisors (Male and Female). All of them were called; 15 females were willing to participate. This sampling approach was also used as it suited the research context where there were

potentially unobtainable populations that were few and geographically dispersed, and where a level of trust was required to become willing participants (Parker and Geddes 2019). This sampling approach was employed also because potential respondents were especially hard to reach because of Covid-19 restrictions. While the potential pool was known, the sample size was not predetermined. The pool size was limited primarily by financial and time limitations as explained when declaring the limitations of the study in Chapter 1.

Although the pool and sample were small, data collection was also influenced by the application of the principle of saturation. Corbin and Strauss (2014) and Saunders *et al.* (2018) explained that the point of saturation is reached when further data collection becomes counterproductive and new information from respondents does not necessarily add to the overall research or story. Hence, engaging respondents continued until no new information was obtainable from additional respondents.

All the respondents gave their informed consent before data collection. The interviews commenced with the provincial director of extension advisory, followed by the district director and assistant district directors of extension advisory services, and the female extension advisors. The 36 extension advisors were telephoned individually; 15 females were willing to participate and were subsequently interviewed. Those who were not willing to participate were not requested or otherwise required to give a reason.

To facilitate participation, the interviews were conducted at venues chosen by the respondents at their convenience; respondents' preferences for dates and times for the interviews were also accommodated. The interviews were conducted in English as all the respondents were proficient in English. Interviews were recorded with the express and individual informed consent of each respondent. Notes were also taken during the interview to facilitate transcription, cross-checking responses, and capture thoughts and observations that were not otherwise part of the participants' responses. One observation was that some of the male respondents displayed gender bias in their responses. To deal with this, responses were probed further with follow-up questions to clarify responses and to evoke more details. The behaviour was not observed in the female respondents.

The findings are thus the results of the semi-structured interviews with 20 respondents guided by a questionnaire with both open- and close-ended questions. The interviews were scheduled to take place between July 2020 to March 2021, but the time was extended because of COVID-

19 pandemic and the challenges encountered in getting the consent of the respondents. The interviews were conducted between July 2020 and September 2021.

4.5. Results

The study results presented have been organized around the following themes: cultural restrictions; skills and productivity; and sexual harassment and personal security. Further, the respondents fell into one of two operational categories: management and supervision; and frontline agents. The findings are thusly presented. The qualitative structure of the study warrants the inclusion of representative quotations from respondents to enhance understanding and clarify points.

4.6. Cultural Restriction of women extension advisors

The respondents were asked questions on the cultural restriction or limitation encountered by female extension and advisory practitioners in the discharge of their duties and how cultural restriction can or has affect the productivity of female extension advisory practitioners.

- **Responses from Management and Supervision (One female; Four male)**

The general response to this line of enquiry was that while there may have been cultural restrictions placed on women in the past, it is not currently the case. Only one of the managerial respondents cited one instance of a situation where one of the women extension and advisor practitioners was reported to have been restricted in a certain community. However, the issue was said to have been quickly resolved with the traditional leader in the community, and there was also an educational programme to educate the traditional leaders on the work of extension and advisors' service. The others indicated that there have not been any cases of woman extension practitioners being intimidated or prevented from carrying out their duties by reason of their gender. However, it was acknowledged that some men farmers "are still very proud", and that they initially tend to look down on women extension practitioners. But as the women practitioners prove their competence this condescension is replaced by respect.

"We can be talking about this in the past but at the moment nothing of such exists...I suppose, as we have not so much had any case of our female advisors been discriminated against or restricted from performing their duties among subsistence farmers in any quarters where our extension practitioners are working...."

They expressed a consciousness of the potential negative impact of any cultural limitations against the women extension practitioners noting that “if females are being restricted from carrying out their duties, it will reflect on our employment scheme”.

Citing the fact that there were more female than male extension officers, the argument was made that the province had “performed relatively well in closing the gender gap”. Greater concern was raised that the discussion is not currently about gender [implying gender per se is not the issue] but should rather focus on “how extension practitioners (male, or female) can be empowered to discharge their daily duties and be more relevant in their various stations”.

Rather than gender being an issue, one managerial respondent indicated that the only things that would limit productivity of female extension workers were much the same as would limit the productivity of male extension workers. Such things included:

- Their capacity limitations;
- Availability of funds;
- Lack of technical know-how;
- Poor understanding of their client needs;
- Poor relationship with host community; and
- Lack of understanding of the farmers’ major livelihood needs and training requirements.

... in the past, traditional leaders used to look down on female extension practitioners; this is not just about extension practitioners; this is a matter of women in South Africa. Although most of our women farmers have still been denied access to land at the rural level, they still face gender equity challenges.

One specific challenge identified that is shared by the female extension workers is that women, once hired, remain at the entry level of extension and advisory services. One respondent who was a part of the recruitment process indicated that approximately 65% of the applicants are women and they get appointed. However, once they are recruited, most women do not progress beyond the junior level. The respondent indicated that they do not meet the requirement for promotion; most do not improve their skills. The main reasons cited for failing to meet the promotion requirements and improve skills were marriage, pregnancy, and childcare. The respondent pejoratively presented these as “excuses” and concluded this part of the response with “while others also have their own excuses”.

- **Women Frontline Extension Practitioners (N=15)**

None of the female respondents indicated experiencing any cultural restriction in promoting their extension interventions and practices. However, three respondents indicated that sometimes male farmers attempt to intimidate them. They did not register this as “cultural” per se, but traced to be as a result of the male farmers’ “ego”. They further explained that such behaviour is individualistic or personal rather than a reflection of prevailing cultural norms or standards. They also expressed that some of the men farmers feel belittled when being guided on the farm practices by female extension advisors. One of these three respondents suggested that when they encounter such behaviour from male farmers, the only response is professionalism from the female extension officer. This would ultimately lead to acceptance by any men farmers who initially express difficulty in accepting advice from women extension practitioners.

While the female extension respondents did not feel they experienced any culturally related barriers, they did indicate that women *farmers* are usually the victim of cultural restrictions primarily to access to land because of the communal land distribution and land rights system, which prevent women from accessing land in areas in KwaZulu-Natal controlled by traditional authorities. They further explained that most traditional leaders do not promote gender equity among farmers in the matters of land access and administration. Some extension women emphasized that the issue of women being disadvantaged in both customary and statutory land tenure systems is “as old as South Africa’s history itself”.

4.7. Skills and Productivity

The respondents were interviewed regarding the skilfulness and productivity of women extension advisors in KZN.

- **Responses from Management and Supervision (One female; Four male)**

The respondents offered divergent views on the skill and productivity of women extension practitioners. The male respondents presented generic statements about training being available to all extension practitioners, irrespective of gender, in which they can enrol to enhance their skills and facilitate their productivity level. One respondent was unable to comment on the skill level of women extension advisors but when commenting about the women he is working with stated that “some are lazy while some are hardworking.... when someone is lazy, you can’t be

productive regardless of being skilled or not”. He also emphasized the importance of self-development by saying “you don’t wait on the organization; it is necessary to get yourself developed in areas where you think you require development”. No mention or reference was made to the unique challenges faced by women in the workplace due to requirements of marriage and motherhood.

Other managerial respondents indicated that only few of the women extension advisors under them have been exposed to requisite skills programmes and knowledge required to meet their clients’ needs, and that as a result, there exist substantial lapses in extension delivery and services to farmers. One of these respondents indicated that men extension practitioners are more skilled and productive than the women because most of them either further their education or go for some form of paid training at their own expense. However, this female respondent cited family responsibilities, pregnancy, childbirth, poor dedication to personal development programmes, and unwillingness on the part of the women extension advisors as limiting factors that often hinder the female advisors from acquiring the required modern skills. Specific training being missed included technological training, project management training, and training on communication. She further explained that while training may not be offered physically in the department, it was available online. In sharing these insights, she also characterized such training as “self-development” – suggesting that pursuing such training is the responsibility of the individual, further suggesting that any lack of training rests, primarily, if not solely with the individual. There appeared to be little institutional ownership of training beyond making it available. There was no mention of efforts made by the department to facilitate access, make enquiries when training is not taken up, or to otherwise support staff in pursuing training.

- **Women Frontline Extension Practitioners (N=15)**

Women frontline extension advisors were asked to identify the skills they had and the areas where they felt their skills are deficient. Table 4. 1 and

Table 4.2 capture their responses.

Table 4.1 summarizes the skills possessed by women practitioners interviewed in the study area. All the respondents are skilled in crop production, irrigation, and animal production. However, they have no or limited skills in other areas such as soil classification and organic farming.

Table 4. 1: Skills possessed by women Extension Practitioners

Skills possessed	Frequency	%
Crop production	15	100
Irrigation	15	100
Animal production	15	100
Soil classification	3	20
Organic farming	2	13

Table 4.2 shows the skills required identified by the women extension practitioners interviewed in this study. Most (80%) of the respondents indicated that marketing was one of the major skills they required to assist and educate the farmers on how to sell their agricultural produce. The respondents also listed other required skills like organic farming, farm recordkeeping, soil classification, value chain, and entrepreneurship. It was observed that some of the respondents could not expressly identify the skills they required or needed to aid the effectiveness of their works (pers. obs). This may explain their lack of response to other training areas such as climate-smart agricultural practices, hydroponics, value chain, etc., that are essential to modern-day extension services.

Table 4.2: Skill deficiencies identified by women Extension Practitioners

Training Required	Frequency	%
Marketing	12	80
Organic farming	6	40
Farm record keeping	4	26
Soil classification	3	20
Value Chain	3	20
Entrepreneurship	2	13
Hydroponic	2	13
climate smart agricultural practices	1	6
Computer Operation	1	6
Project Management	1	6

4.8. Sexual harassment and security threats

The respondents were asked questions about workplace sexual harassment and security threats faced by female extension advisors in KZN.

- **Responses from Management and Supervision (One female; Four male)**

The respondents gave generic or non-specific responses to this line of enquiry – all noting that there has been no report of sexual harassment among female extension advisors either from their colleagues or farmers. One of the managerial respondents specifically stated that:

“We have not experienced anything related to sexual harassment among our female staff; If such a thing ever happened, we would take legal action against whoever is found complicit”.

The respondent further explained, *“Most of our female extension advisors are professionally disposed and well respected both by their colleagues and the farmers they are working with, even by traditional authorities”.*

However, all the respondents lamented and emphasized the rising occurrence of car hijacking among extension advisors; with women considered more susceptible. In their opinion, car hijacking is an offshoot of South Africa’s rising insecurity.

- **Women Frontline Extension Practitioners (N=15)**

None of the respondents indicated any cases of sexual harassment. However, they all cited car hijacking as the security threat they have had to deal with at one point or another in their professional lives. In describing their experiences, some of the respondents stated:

Car hijacking is a scary experience that often limits or hinders us from going to some location; it is not something you want to experience because it is often traumatic and discourages us from extension work.

Exclaiming, one of the respondents stated that “car hijacking is too much”. Others pointed to the reoccurrence of carjacking as the reason why they often prefer going to the field with their male counterparts, stating that “the hijackers often fear men”. This suggests that the women extension practitioners feel more vulnerable and less safe than the men when working and travelling alone. The need to travel with another practitioner (male) could reduce efficiency,

particularly in terms of the number of farmers who can be contacted at any given time or on any given mission.

4.9. Challenges relating with farmers (Especially Male)

The respondents were asked questions to highlight some of the challenges women faced in relating with farmers, especially male farmers.

- **Responses from Management and Supervision (One female; Four male)**

Some of the respondents reiterated that although women extension advisors no doubt may be facing challenges, rather than focusing solely on gender issues, there is a need to focus on the challenges encountered by extension-farmer relationships generally. To emphasize this point, the respondents went further to recommend considering the dynamic nature of extension work and the satisfaction women derive in discharging their extension duties. In their view, extension work is dynamic and full of life lessons. This dynamism of extension in relation to women is captured in comments made by two of the respondents:

Their work is demanding (i.e., requires a lot of energy), challenging and Interesting. They emphasized that their Job has exposed them to various travels around the rural areas, which has given them the opportunity to witness what people are going through, which often affects the farmers' livelihoods.

Extension work has taught them many life lessons they could not have learnt sitting in the office. They added that they reach the farmers and learn from them.

The respondents expressed that they are aware of some gender-based limitations experienced by women when dealing with male and women farmers; however, these limitations are often addressed through creating farmer awareness and sensitization. One respondent indicated that:

“It is not uncommon to see female extension workers to be looked down upon by male farmers; this is what many women extension advisors face day in and day out and will likely have to live with throughout their professional life.... This challenge is a product of sentimental and traditional backward belief that has plagued our society for decades.

- **Women Frontline Extension Practitioners (N=15)**

The respondents first expressed the joy they derived in discharging their extension duties. However, venting their frustration, all the respondents pointed to the fact that there are insufficient resource supplies, especially teaching tools, which adversely affects the smooth running of their training among farmers. They further indicated that the old method of using paper and blackboard to train farmers often affected their productivity, impeded their success rate, and was generally not helpful for the extension-farmer relationship. They pointed out that the new agricultural extension reality requires modern technology such as computers, projectors, and agricultural software.

The respondents indicated that farmers' perceptions (especially male farmers) of women extension advisors could create challenges for them in their relationship with farmers. Four such perceptions were:

1. Women extension advisors often possess a know-it-all attitude;
2. Extension advisors are technically incompetent and unteachable;
3. Extension advisors have ineffective listening skills; and
4. Extension advisors are high-minded.

These perceptions were reported as feedback they had gathered from the farmers. One initial conclusion to be drawn from these findings is that women extension officers have challenges related to their gender and concurrently have to cope with the same issues facing their male counterparts regarding operational issues.

4.10. Discussion

This part of the study found that the extension services in the uMgungundlovu District in KwaZulu-Natal Province of South Africa differ in the gender composition of its extension advisors. Whereas all other provinces have a majority of male extension advisors, this province is more evenly split between females and males. However, this unique demographic did not appear to offer the female extension advisors any advantage with respect to the challenges they generally face as women extension workers.

The responses from the interviews show that there are no widespread cultural taboos or discrimination restricting women extension practitioners' interaction with men farmers. This

is in contrast to some studies that identified cultural taboos as one of the prominent factors that often limit the participation of women extension advisors in extension activities (Ragasa 2014; Manfre *et al.* 2013).

Although, the findings from this study show that female extension officers are not culturally constrained or restricted from discharging their services on account of their gender, the respondents did indicate that there were a few cases where men exhibit egoistic attitudes and are biased toward women extension advisors, which could be attributed to cultural upbringing.

Although it was not part of the study, the respondents did highlight the concern about women farmers' experiencing some form of restrictions and limitations to land access because of the communal land distribution and land rights system in some areas of KwaZulu-Natal controlled by traditional authorities.

In terms of skills and capacity, most of the women extension advisors interviewed had completed training in irrigation and crop and animal production from among the available training programs. Consistent with previous studies (Davis *et al.* 2021; Ragasa 2014), many women extension advisors have not been exposed to some essential formal skills training required to carry out advisory services to farmers. Also, only a few respondents are aware of advanced modern training and skills such as climate-smart agricultural and hydroponics. These findings reinforce the recognition by DALRRD (2020) of the need for reform in extension and advisory services.

Given the date of expressing that need and the continuing need identified in this study, raises a question about the commitment – particularly to women extension advisors – of the South African to developing a highly professional extension workforce with the skills set to perform extension duties in the modern era. The findings show that, unlike their male counterparts, many women extension advisors are skill-deficient and may not be able to provide the support farmers require, indicating a gender gap. Some of the respondents attributed the limited skills among women advisors to the limited funding available for extension training and other limiting factors, such as family responsibility, pregnancy, and childbirth. At the same time, some male respondents pointed out that the skilled deficiency reported by the women extension advisors could be a result of poor individual dedication to personal development programmes and unwillingness on the part of some women extension advisors.

The findings agree with Davis and Sulaiman (2014) and Davis *et al.* (2021), which express the need for extension practitioners to acquire functional skills to solve complex challenges such as climate change and food and nutrition. Acquisition of these needed skills is also important to combat the crisis of stagnation of extension workers in South Africa (Davis and Sulaiman 2014). However, within this is the clear practical bias against women extension workers. Their unique requirements appear not to be accommodated and responsibility for their ‘failure’ to advance placed solely on the women.

In contrast with Jacobs *et al.* (2015) and Henry and Adams (2018), who reported a high incidence of sexual harassment in the African agricultural sector, this study has no reports of sexual harassment as a constraint among women extension advisors. However, the respondents from the survey reported that personal safety and security (car hijacking in particular) is a major threat that often affects advisory services and prevents the women extension officers from travelling to communities to deliver extension service to farmers or requires them to do so with a male co-worker. Women extension advisors openly shared that fear for personal safety and security constrained their productivity and affected their passion for the job. Concurrently, these same women must contend with male farmers who minimize their contribution and based on the nature of their supervisors’ responses, with supervisors who dismiss the unique requirements and challenges. All of this happens while operating alongside their male counterparts within a system that is under-resourced.

4.11. Conclusion

Extension advisors are critical stakeholders in the agricultural development strategy. Although, the gender composition of the uMgungundlovu extension advisors is evenly split between females and males, making it unique. There are unique challenges confronting the effectiveness of women extension advisors in the study area that need to be addressed to ensure a successful gender equity agricultural sector that promotes economic progression, maximum farming productivity, and household food security.

This study found that, although cultural restriction is no longer regarded as a frontline challenge for female extension practitioners in the study area, it determined that their challenge is one that is experienced by women in many professions – embedded gender bias. The findings is consistent with Osituyo (2017, 176-181) who shows that in the South African public service, there is a “persistent manifestation of gender disparity” which is fuelled by “women’s

managerial capability”, “gender-role perceptions”, and “gender stereotype” – the latter two of which have a “negative effect on women’s career path” ().

This study confirmed that extension managers and supervisors in this case do not own up to women’s unique requirements and challenges but instead favour a general perception of performance, advancement and training and development needs. Hence, there appears to be a disconnection between the claim of women advisors and some of the management in terms of the challenges confronting women extension practitioners, given the dismissive manner in which some respondents are addressing their challenges. The assumptions of some extension managers and supervisors do not seem to portray the existing gender gap in personnel development beyond lack of capacity building and women’s weakness in taking the initiative for self-development. In recognition of skills deficiency, female extension highlighted their skill competence and the areas of training required to carry out more productive and effective extension service. However, some managerial respondents do not consider acquiring needful skills an organizational responsibility but rather a personal impetus or responsibility. Therefore, there appeared to be little institutional ownership of training beyond making it available. As such, there seems to be little effort to facilitate and support women extension practitioners in pursuing training. Insufficient supply of resources and teaching tools are also concern that often makes female extension practitioners feel incompetent and fractures their relations with farmers, as identified in this study.

This study recommends the reconstruction or reconstitution of the policy framework so that all extension practitioners are empowered with the knowledge and skills to address men and women farmers equitably. It also recommends the need to address the specific issues confronting women extension practitioners while promoting collaboration between extension practitioners and the farming communities by building an equitable extension advisory system in KwaZulu-Natal, South Africa. Extension practice needs to consider policy implementation that addresses women’s unique challenges, without which it will be impossible to provide farmers, especially women, with effective and sustainable support.

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- Implementationinclusion

CHAPTER 5

Prospect of empowering women extension advisors: A case study from DARD Extension Advisors at uMgungundlovu District of KwaZulu-Natal, South Africa

Johnson A. Adebayo & Steven H. Worth

Agricultural Extension and Rural Resource Management, School of Agriculture, Earth and Environmental Science, University of KwaZulu-Natal, Pietermaritzburg, South Africa

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Corresponding author: Johnson A. Adebayo Email: jaadebayo@gmail.com ORCID: <https://orcid.org/0000-0002-9464-3458>

Other emails and ORCIDs

Steven H. Worth Email: WorthS@ukzn.ac.za; ORCID: <http://orcid.org/0000-0002-3291-5542>;

Abstract

This study aimed to understand how the Inclusion and empowerment of women extension advisors influences agricultural practices and facilitate the Involvement of women farmers in extension interventions or activities to benefit food security, poverty reduction plans and policy. Forty-six respondents were selected for this study, with one provincial director of extension and advisory services, one director of women-based NGO, one district director of extension and advisory services, and three deputy directors, all selected using the purposive sampling. Fifteen women extension advisors, five men extension advisors, ten women farmers, and ten men farmers were selected using purposive sampling method. Semi-structure interview was used to gather information from the directors of extension advisory services and extension advisors, while a focus group discussion method was used to interview the farmers. Empowering women extension advisors serves as an essential mechanism that can facilitate the fight against poverty, reduce food insecurity, improve farmers' knowledge of best agricultural practices, enhance their skills and innovative capabilities, and increase women farmers' Involvement in commercial agricultural practices. Appropriate policy design that fosters a level playing field between men and women extension advisors would position women to undertake any extension intervention that improves agricultural practices, encourages women farmers, and promotes sustainable agriculture.

Keywords: Empowerment, Extension, Food security, Women in agricultural extension, uMgungundlovu

5.1. Introduction

Agricultural extension and advisory services have become an essential mechanism and a tool employed by government and non-government organizations to promote agricultural productivity and technology adoption. These organizations share resources, disseminate needful advancement in science and technology, and engage in knowledge exchange with farmers (Witinok-Huber *et al.*, 2021). According to Rivera *et al.* (2002) and Camillone *et al.* (2020) extension and advisory services remain a core policy tool for advancing ecological and socially sustainable farming practices, irrespective of farm productivity and sustainable farming practice. Over the years, the agricultural sector has become included with cultural gender norms debate, such as what women and men cultivate and who can access the available resources (Huyer, 2016; Witinok-Huber *et al.*, 2021).

The study by Witinok-Huber *et al.* (2021) argued that it is essential that the government, through agricultural extension services, effectively targets the needs of farmers while simultaneously addressing gender inequalities in the agricultural sector by understanding the needs of farmers through a holistic, intersectional lens. Kondylis *et al.* (2016) suggested in their study that the pathway to increasing agricultural yields may be to enhance female farmers' productivity. The study also further states that empowering women in extension positions may hold a long-term prospect of helping women farmers overcome obstacles created by inequitable access to agricultural extension services. Empowering women extension advisors has also been regarded as essential to realizing sustainable development in the agricultural sector (Rui and Nie, 2021). Cornwall (2016:356) argues that the empowerment process is complex; it requires more than simply providing access to resources, assets, and services. It requires a shift of perspective and practice and adoption of "methodologies that will create spaces for people to build confidence and self-esteem".

Empowering women extension advisors is an important component of the fight against poverty. It helps increase the productivity of women farmers, facilitates increased employment, and contributes to reducing household and national poverty while promoting economic growth (Faborode and Alao, 2016; Diiro *et al.*, 2018; Maligalig *et al.*, 2019; Rui and Nie, 2021). The agricultural sector is a major part of women's livelihoods in developing countries; 60 per cent of women in sub-Saharan Africa and 80 per cent of women in the least developed countries rely on agriculture for at least part of their livelihoods (Huyer, 2016; United Nations, 2015).

As important as agriculture is to millions of women, studies show that despite the efforts made to increase the efficacy and equity of extension service dissemination in rural communities worldwide, including South Africa, women remain grossly under-represented, under-served, and less empowered (Farnworth and Colverson 2015; Huyer 2016; Moore 2017; Coulter *et al.*, 2019).

Based on this background, this study aimed to identify the impact of the services of women extension practitioners among women and men farmers in the uMgungundlovu District of KwaZulu-Natal, South Africa. The aim was to understand how the inclusion and empowerment of women extension advisors can positively influence agricultural practices and facilitate the involvement of women farmers in extension interventions. This paper explores how women extension advisors' empowerment can boost household food security, enhance farmers' livelihoods both now and in the future, and benefit poverty reduction plans and policy.

5.2. Conceptualizing women extension advisor's empowerment

Extension advisory services are the primary instrument through which farmers expand their ability to adapt to new technologies and ideas (Karubanga *et al.*, 2016). The fundamental component of any extension framework and approach is to positively promote or influence learning in such a way that changes are achieved in applying production and farm business management technologies. Extension activities serve as the developmental bridge that interlinks the operations carried out by farmers and the ever-evolving agricultural knowledge and technology (Cai & Abbott, 2013; Karubanga *et al.*, 2016). It helps them be better equipped to manage their farming enterprises and engage intelligently with other role-players and stakeholders (Abdu-Raheem and Worth, 2016). The active participation of extension workers is an important factor in determining the success of any agricultural development program.

Given the growing interest in supporting women's empowerment in agriculture (Johnson *et al.*, 2017), women extension advisors are expected to act as agents of change in agricultural development (Ibrahim *et al.*, , 2021), particularly among women farmers. However, many extension advisors, especially women, still lack the required capacity when engaging with farmers in their working areas (Ibrahim *et al.*, 2021). Thus, empowering women extension advisors is posited as a significant development objective and investment in the agricultural sector (Johnson *et al.*, 2017). According to Sarvanan and Rasmy (2001), women extension advisors are a prominent partner in the agricultural sectors; they play a crucial role in promoting

conversation about agricultural resources among farmers, especially women farmers. They are potentially good decision-makers and effective supervisors to both men and women farmers (Sarvanan and Rasmy, 2001). Therefore, empowering women extension advisors can play a crucial role in improving the production potential of farmers, especially women farmers.

5.3. Methods

A qualitative approach in the form of a study case was used for this study. The study was carried out in the uMgungundlovu District Municipality of KwaZulu-Natal Province. The municipality comprises seven local municipalities, the largest of which is the provincial capital, Msunduzi. It has an estimated population of 1,1 million people, 52% female and 48% male. It covers 9,603 km² and has a population density of about 110 per km², with 58% living within urban settlements, 38% living within rural settlements and 9% living in small holdings on various farms (Department of Cooperate Governance and Traditional Affairs, 2020). Overall, the district has substantial agricultural land potential. Most of the agricultural land is committed to commercial farming. The uMgungundlovu district is considered the agricultural hub of KwaZulu-Natal (Department of Cooperate Governance and Traditional Affairs, 2020). uMgungundlovu, which houses the university from which the study was conducted, presented both accessible and relevant to the study's aims.

Data were collected through semi-structured interviews with 46 respondents. Six of these respondents included one provincial Director of Extension and Advisory Services, one district Director of Extension and Advisory Services, one Director of a women-based NGO and three Deputy Directors of Extension Advisory Services. All were selected using purposive sampling. Additionally, through purposive sampling, 15 females and five male public extension practitioners from the KwaZulu-Natal Department of Agriculture and Rural Development (KZNDARD), uMgungundlovu District, were selected. Purposive sampling allows the selection of information-rich respondents (Abdu-Raheem & Worth, 2014; Patton, 1990) with distinct attributes or features applicable to the subject of this research (Abdu-Raheem & Worth, 2014). Also, purposive sampling allows for the deliberate selection of individuals or groups of individuals that are proficient and well-informed with a phenomenon or characteristics of interest relevant to the objectives of this research (Bernard, 2002; Cresswell, and Plano Clark, 2011; Etikan *et al.*, 2016;). Using purposive sampling, ten male and ten female farmers from Nglianyoni village, Richmond Local Municipality, uMgungundlovu District were selected to participate in the study. Two extension practitioners – one female, one male) were followed

into the field on their training and visiting day to interview the farmers. A total of four focus group discussions (2 with women farmers and 2 with men farmers) were conducted in isiZulu in Nglinyoni village, with the help of a field research assistant who is a native isiZulu speaker. Focus group discussion participants averaged five participants per group, making a total of 20 farmers participating in the process.

The women and men were interviewed separately, employing a Focus Group Discussion (FGD) for a minimum of one hour, with each focus group containing five respondents, to avoid unnecessary interference. Using a process similar to snowball sampling (Parker and Geddes, 2019), the district director and assistant district directors of agricultural extension and advisory services were specifically selected through a recommendation from the provincial director of extension services. The extension advisors were also selected through recommendations from one of the assistant district directors. The assistant district director released the contact details of 36 extension advisors (male and female). We put a call through to them all; 15 females and five males were willing to participate. This sampling approach was also used as it suited the research context where there were potentially unobtainable populations that were few and geographically dispersed and where a level of trust was required to become willing participants (Parker and Geddes, 2019). This sampling approach was also employed because potential respondents were especially hard to reach because of Covid-19 restrictions. While the potential pool was known, the sample size was not predetermined. The pool size was limited primarily by financial and time limitations.

Although the pool and sample were small, data collection was also influenced by applying the principle of saturation (Corbin and Strauss, 2014; Saunders *et al.*, 2018). Saturation is reached when further data collection becomes counterproductive and new information from respondents does not necessarily add to the overall research or story (Corbin and Strauss, 2014; Saunders *et al.*, 2018). Hence, engaging respondents continued until no new information was obtainable from additional respondents.

All the respondents gave their informed consent before data collection. The interviews commenced with the provincial director of extension advisory, followed by the district director and assistant district directors of extension advisory services, the female and male extension advisors, and ten female and ten male farmers. The 36 extension advisors were telephoned individually; 15 females and five males were willing to participate and were subsequently

interviewed. Those who were not willing to participate were not requested or otherwise required to give a reason.

To facilitate participation, the interviews and focus group discussions were conducted at venues chosen by the respondents at their convenience. The respondents' preferences for dates and times were also accommodated. Interviews were conducted in English as all the respondents were proficient in English. Interviews were guided by a questionnaire with both open- and close-ended questions. The interviews were recorded with each respondent's express and individual informed consent. Notes were also taken during the interview to facilitate transcription, cross-checking responses, and capture thoughts and observations that were not otherwise part of the participants' responses. One observation was that some male respondents displayed gender bias in their responses. To deal with this, responses were probed further with follow-up questions to clarify responses and to evoke more details. The behaviour was not observed in the female respondents.

Overall, 46 respondents participated in the study. Twenty-five (25) were officials from the uMgungundlovu District Extension service engaged through semi-structured interviews; One (1) director of women-based NGO engaged through semi-structured interviews, and Twenty (20) were farmers engaged through focus group discussions. The interviews were scheduled to take place between July 2020 to March 2021, but the time was extended because of the COVID-19 pandemic and the challenges encountered in getting the respondents' consent. The interviews were conducted between July 2020 and September 2021. The composition of interviews and focus group discussion is set out in Table 5. 1. The semi-structured interviews were carried out with one respondent each, and the focus group discussions were done with five respondents at a time.

Table 5. 1: Overview of semi-structured interviews and focus group discussions.

Respondents	Number of semi-structured interviews	Number of focus-group discussions	Total number of participant
Directors of Extension Advisory (Province and District Level)	2	0	2
Deputy directors of extension advisory services (District level)	3	0	3
Director of NGO	1	0	1

Respondents	Number of semi-structured interviews	Number of focus-group discussions	Total number of participant
Female extension advisors	15	0	15
Male extension advisors	5	0	5
Female farmers	0	10	10
Male farmers	0	10	10
Total	26	20	46

5.4. Results

The presentation of results is divided into three broad sections: the unique services rendered by women extension advisors and the effectiveness of this service among rural women farmers; areas of empowerment required by women extension advisors and the prospect of their empowerment in addressing farmers' challenges; and issues related to women farmers. The third section focuses on the situation of women farmers, their crops, access to women extension practitioners, and how extension intervention has helped them achieve food security and promote their economic power, reducing poverty among women farmers.

The unique services rendered by women extension advisors and the effectiveness of this service among rural women farmers

The respondents were asked questions on the types of services carried out by female extension and advisory practitioners and how effective this service has been among female farmers.

- **Responses from Management and Supervision (One female; Four male)**

Most of the respondents indicated that all extension services should be regarded as unique and given the recognition they deserved beyond the gender lens. However, few respondents also indicated that female practitioners are highly productive in some aspects of extension services. It was emphasized that this emerges in certain circumstances that involve dealing with girls- and women-headed households. They expressed a consciousness of the impact female extension practitioners are making regarding female-headed households, especially girl-headed households.

“No one can deny the fact that the female extension practitioners have been of great help to young girls with a baby..... they know how to reach them better and communicate with them than the male extension practitioners, this is not to play down the outstanding work of the male extension practitioners are doing too.”

One of the managerial respondents, responding to the influence of female extension practitioners in the rural community, stated that:

“Female extension practitioners were particularly outstanding in getting the required seed and fertilizer across to female-headed household during the One Home One Garden food security initiative project, which was meant to mitigate the food security challenge.”

One specific thing cited by the respondents is that, aside from social welfare funds received by most people in the rural community, female-headed households depend on agriculture and agricultural produce for survival. It was further emphasized that through agriculture, they have adequate access to food supply to meet their family’s nutritional needs and to supplement their income beyond social welfare grants from the South African government.

- **Response from NGO Management (N=1)**

The respondent indicated that their organization works with over 50000 women, mostly farmers, from all over the district which stretches from the midlands to the mountain border with Lesotho, many of whom are not food secure. The respondent stated they are working to ensure land rights and food security for single women, widows, and women-headed households. Therefore, they often need to partner with female extension practitioners. The respondent further cited that some of the female extension practitioners are active volunteers in their advocacy program intervention.

“After we fight for our women to get land for farming, we need to train them on how to farm productively so that they will be able to take care of themselves and their children.....we often need these female extension practitioners to help us train them, as many of their male colleagues don’t believe in what we are doing”.

“Some of the female extension practitioners are our friends and able partners in ensuring that women whose agricultural land has been trampled upon by traditional leaders get what belongs to them.”

The respondent further indicated that the organization often receives funding to empower and assist the women in their farm work. However, disbursing such funds to women to plant food crops without adequate training received through the intervention of female extension practitioners will be a waste of funding. Thus, the aim of achieving food security among these marginalized women may be defeated.

- **Women Frontline Extension Practitioners (N=15)**

The respondents gave a generic response by first highlighting the unique services they carry out among female farmers and how this service has helped to improve their livelihoods. The study found that women extension advisors often engage in four types of women-oriented projects:

- Projects targeting rural livelihoods and food security among the women-headed households;
- Projects seeking to promote women's land rights;
- Increasing women's participation in commercial agriculture production; and
- Ensuring that women farmers get equal access to productive resources.

These findings provide insight into the type of service carried out by women extension advisors among farmers with a special reference to women farmers. Female extension practitioners are essential change-makers in ensuring that women farmers are not excluded from extension intervention programs. One of the respondents narrated the following incidence to elaborate on the impact of the engagement:

“We had a case of a woman whose husband died, and she went to “ubabo uthanali” (Traditional leader) to ask if she could be allocated land, and “ubabo uthanali” said, “I wish your daughter were a son. If she were, I would have allocated land to you now, but because she is not, unfortunately, I cannot allocate land to you.” This is just one out of many cases. However, under this constrained condition, we mediate between the community leader and the women to ensure women are given access to land for agricultural practices.”

Female extension practitioners mentioned multiple challenges women farmers face, including illiteracy, lack of productive resources, exclusion from the decision-making process, and other socio-cultural issues in many parts of KwaZulu-Natal. They further indicated that communal

land administration in KwaZulu-Natal is often administered by traditional leaders, who may trample women's right to agricultural land. This is the context in which these extension advisors do their work.

Some of the respondents also stated the uniqueness of female extension practitioners and the services they render. One stated the following.

“Building on the success recorded by DAFF’s “One Home One Garden” food security initiative, we work to ensure the continuity and sustainability of this initiative among farmers, especially the women and girls household heads, so that they can attain household food security stability and produce some to generate income.”

“Our involvement in extension activities as female extension practitioners has strengthened extension services delivery to women farmers, as we often ensure their active participation in any extension program.....hence, we have helped the women farmers to be more productive.”

The respondents claimed that most of the subsistence farmers in the rural area are women, most of whom are primarily food insecure. They further stated that many male farmers have other work aside from farming, hence the reason they are more food secure than women-headed and girls-headed households; thus, women and girls are the majority of those involved in the One Home One Garden initiative. Therefore, the respondents suggested that they will do more to engage women farmers in the agricultural value chain if they are empowered substantially with the required resources and training.

- **Men Frontline Extension Practitioners (N=5)**

Most respondents declined to comment or differ in their assessment of female uniqueness regarding extension services rendered and their effectiveness to female farmers. They believe every extension service needs an equal assessment and priority regardless of who rendered the service, or the services rendered. One of the respondents stated that there is a need to move from viewing extension work with gender lenses to addressing the fundamental problem of extension. Commenting further, “the challenge of extension is not gender-oriented but rather competences, and need of resources to meet extension goals, and solve rural household food security problem.” One of the respondents, however, indicated that attention must be given to work done by both male and female practitioners. Only one among the respondents commented

that female extension practitioners have excelled in terms of gender inclusion, food crop planting facilitation and support for female farmers. Worthy of note is one of the responses.

“We all work based on norms and standard as stipulated by the department, so it does not matter who trains who and who is trained, the most important thing is to carry out the extension intervention wherever you are posted, whether you are a male or female extension practitioners we all work based on the available service, and when we get to the field we do not segregate.”

One specific and common assertion by the respondents is that household food security is a national problem that needs everyone (female and male extension practitioners and other stakeholders) for it to be addressed. However, they all acknowledged that female farmers receive less attention in terms of extension services in some districts or provinces.

- **Women Farmers (N=10)**

The respondents speak of women extension practitioners being sensitive to their household needs and promoting inclusion in intervention programs. The respondents also indicated that they were rarely informed about extension operation and training in the past, but this is no longer the case, because of increased involvement of female extension. Some of the respondents further pointed out that they are no longer excluded from seed distributions to grow crops such as potatoes and vegetables to enable them to cater for their household food needs rather than just depending on social welfare grants. Female extension practitioners often encourage our young girls with children to embrace the home garden initiative so that they can feed their families. None of the respondents indicated being denied access to land either now or in the past. They pointed out that their food crops are often sold in the village. However, all the respondents stated that they had been encouraged in one way or the other by female extension practitioners to commercialize their agricultural practices to generate more income.

One initial conclusion that can be drawn from these respondents is that female extension practitioners have promoted food security initiatives, measured among them, and facilitated their iInclusion in extension programs’ iImplementations.

- **Men farmers (N=10)**

The respondents in this category claimed not to know much about the service female extension practitioners render to female farmers outside of the general extension training they all received. They indicated not knowing if women farmers in their community can now meet their nutritional needs or not, given their claims that all farmers have the same extension service experience. Dismissively, they pointed out, “we don’t know how to measure what female practitioners are doing that is different from others.” Only two of the respondents pointed out that female extension practitioners seem to have a better working understanding with female farmers than they possibly have with male farmers, and they really help them in terms of gaining stability and feeding their household. They further stated that there is an increase in the participation of women farmers in extension training and services as a result of female extension practitioners coming to their community. One respondent noted:

Female extension practitioners often request our “umholi wokubambisana” (cooperative leader) to ensure women are well represented on training day.....they have helped to facilitate the easy access of women farmers to extension training, information, and services.

However, some respondents still maintained that male extension practitioners are more knowledgeable, skilled, or competent than females.

Empowerment required by women extension practitioners

The respondents were asked questions on the areas where they think female extension practitioners required further training or empowerment to aid in the discharge of their duties and affect farmers’ productivity.

- **Responses from Management and Supervision (One female; Four male)**

Most respondents emphasized the need to set gender issues aside and focus on the broad extension scope of extension training needs. They indicated that all extension practitioners have varying training and empowerment need. The respondents noted the following as extension practitioners felt needs:

- Communication
- Soil and water management
- Seed technology

- Plant protection techniques
- Program planning
- Data analysis
- Extension evaluation
- Organic agricultural practices
- Climate smart agricultural techniques

According to the respondents, it is important to equip both female and male extension practitioners with the above skills to improve their knowledge and boost extension services to farmers. One of the respondents noted that there might be a need for some of the personnel to travel to other countries to acquire some of this training, stating that two extension practitioners were sponsored on a six-month training course in Kenya and China before Covid-19. Inquiring further on the qualifying criteria for the training, the respondent dismissively indicated that;

“Gender issue is irrelevant.....the two people were selected based on certain criteria and those who meet the criteria were chosen without any bias”.

The respondents stated that empowering female and male extension practitioners will advance agricultural extension goals and programs in South Africa. They further stated that if there is any time to take extension practitioners’ empowerment seriously, it is now that the nation is facing challenges of food insecurity and climate change.

- **Response from NGO Management (N=1)**

The respondent could not particularly state the areas where female extension practitioners require empowerment. However, the respondent indicated that empowering female extension practitioners will mean empowering female farmers, whom she noted has often been side-lined or marginalized. The respondent noted that;

“The women we are working with, of whom the majority are farmers, will do great services if those that are training them are empowered or receive more training”.

- **Women Frontline Extension Practitioners (N=15)**

The respondents mentioned their need for empowerment in digital literacy, especially acquiring skills in using technological tools such as projectors, laptops, training apps, etc., to conduct extension training for farmers. One respondent noted that Covid-19 affected their training

engagement with farmers, especially women who often cannot afford private extension fees. As such, they could not continue growing crops. They stated further that if they were given the required resources and adequate training, it would not be impossible to train farmers virtually. The respondents noted other empowerment needs areas such as irrigation systems, soil fertility tests, greenhouse structures, marketing, organic farming, project management, farm record keeping, soil classification, climate-smart agricultural practices, hydroponics, value chain, and entrepreneurship.

The respondents expressed that empowerment will significantly increase women farmers' productivity, facilitate rural employment, and improve income-earning and economic growth among farmers, especially women farmers. They further stated that empowering female extension practitioners in critical areas of technology requirements holds the prospect of facilitating farmers' easy access to technology. One respondent also noted that female extension practitioners' empowerment would help equip female farmers with the requisite knowledge and skills to make them expert farmers and facilitate their ability to make informed decisions and solve their problems to make their farming profitable and sustainable.

- **Men Frontline Extension Practitioners (N=5)**

Most of the respondents did not make mention of female practitioners but rather maintained that all extension practitioners required, as a matter of urgency, empowerment in several areas such as climate-smart agricultural practices, extension evaluation, project management etc. One respondent indicated that all extension practitioners' empowerment is crucial to enhance farmers' timely information and knowledge transfer.

- **Women Farmers (N=10)**

The respondents all indicated that they desired female practitioners to be more market-oriented to link them to where they can sell their crop produce. Those respondents that are sugarcane farmers pointed out that they do not often have a problem with selling the sugarcane they grow as those that buy it usually come to their community to purchase the product once. However, they stated that they would be willing to grow more food crops if female extension practitioners could link them with the market outside their community. Hence, they pointed out that market empowerment is an important area of intervention they needed from female extension practitioners. Few other respondents indicated areas like disease and pest controls, entrepreneurship, climate smart agricultural practices, training on crop protection, and

selection of crops suitable to soil conditions and prevailing weather as important areas they needed help from female extension practitioners.

- **Men Farmers (N=10)**

Most of the respondents did not particularly respond to the question asked but indicated that they often have challenges with irrigation. They, however, stated that all extension practitioners should be trained and empowered in any area that they know will advance their farm practices. Although the respondents stated that they do not get the extension practitioners to visit often. One respondent noted that:

“We farmers have several areas where we need extension practitioners help.....we are not so concern about the gender of extension practitioners, the most important thing is to get the training and intervention that will benefit us.”

However, one of the respondents did state that female extension practitioners have helped to facilitate the access of the community women farmers to extension training and services. He suggested that empowering female practitioners will greatly benefit farmers.

Women farmers, crops planted, and access to extension training

The respondents were asked to discuss the crops they grow, their access to female extension practitioners and how extension intervention has helped them achieve food security and promote their economic power, reducing poverty among women farmers.

- **Women Farmers (N=10)**

Table 6. 1 below shows the lists of the crops grown by women farmers interviewed in this study. All the respondents grow sugarcane. However, 60% of the respondents identified sugarcane as the only crop they grow. In stating their rationale for growing only sugarcane, the respondents indicated that most of their financial earnings are from sugarcane. They argued that there is no market for food crops beyond their village, whereas there is a well-established market where they sell their sugarcane in bulk. The 40% of the respondents who grew crops in addition to sugarcane indicated that the crop are grown for consumption. The respondents stated that the visiting female extension practitioner advised them on the necessity of growing

food crops in addition to sugarcane. They noted that the two extension practitioners (one female and one male) came to train them on how to irrigate their sugarcane.

Table 6. 1: Crops grown by women farmers

Crops grown	Frequency	%
Sugarcane	6	60
Sugarcane and food crops (e.g., spinach, kale, potatoes, cabbage, maize etc.)	4	40

Access to extension services

All the respondents involved in the FGDs indicated that female and male extension practitioners often visit inconsistently or infrequently. The respondents indicated that extension practitioners come around only once or twice in six months, especially during the growing season. They noted that:

“We sometimes need extension practitioners to come to our aid especially when we have problems with our crops, but we do not know how to reach them.... We eventually must solve our problems using the indigenous knowledge”.

However, the respondents noted that the limitations associated with their participation in extension training and intervention program five years previously disappeared quickly with the increased involvement of female extension practitioners in extension and advisory services.

Effect of female extension practitioners’ visit on farmers’ livelihoods

The respondents stated that female extension practitioners have been instrumental in helping to improve livelihoods. They indicated that extension practitioners sometimes give seeds during planting season, and that the resulting harvest helped feed and sustain their household.

The respondents further stated that female extension practitioners motivate them and their female children. They noted that:

“Female extension practitioners advise us about our girls, encourage our girls who are nursing children to return to school, and advise us on the crops to plant outside of sugarcane.”

Some respondents mentioned that farming activities enhanced their ability to depend less on the monthly government social grants of R350 disbursed to them. Others stated that they struggle to meet their household needs due to large numbers of children and that their struggle for money and food had been substantially reduced. The respondents pointed out that they can now make some money from their sugarcane sales, from which they can also purchase food, saying, “we buy food from our profit”.

5.5. Discussion

This part of the study found that empowering female extension practitioners holds the prospect of improving women farmers’ efficiency and effectiveness. Female extension practitioners render unique extension and advisory services to women farmers, from services that promote rural livelihood and food security among women-headed households to women farmers’ land rights and ensure their access to productive resources. They have also helped to increase women’s participation in commercial agriculture production in our study area. These findings are consistent with Hansen (2015), who posited that empowering extension practitioners not only influences farmers’ problem-solving behaviour but also possesses abilities to affect rural economics and deal with hunger and food insecurity among farmers, especially women farmers.

Paying attention to their empowerment needs can, therefore, further pave the way for women farmers’ livelihoods and further promotion and facilitate agricultural extension goals.

The findings suggest that female extension practitioners are instrumental in supporting smallholder farmers, especially women. However, they possess insufficient or inadequate technology knowledge, especially skills in digital tools, marketing, project management, and soil fertility test knowledge. As such, incapacitated in the level and extent to which women farmers’ extension service needs could be met. According to Lemma (2011), the ultimate test of any extension services or program is the extent to which farmers’ knowledge, skills, and innovative capacities have been improved. Thus, the viability and effectiveness of extension services are often measured using farmers’ knowledge and skills (from extension training) in solving their problems. It is therefore evident that women extension practitioners training need may aid in the discharge of their duties and affect farmers’ productivity. Thus, the empowerment of female extension practitioners is critical. However, this may not yield desired

results if carried out in isolation, as some respondents often dismiss the role and needs of women extension practitioners as irrelevant and needless. In addition to extension practitioners' training, there is need to address the Institutional prejudice and casting of aspersion against women extension practitioner's role; confronting the parochial workplace view that often limit women extension practitioner's self-belief and roles.

In the same line of thought with Cornwall (2016), findings from our study posited the need for a fundamental shift of perspective and practice, without which women may continue to be marginalised because of the way the system is presently designed. Beyond training and providing resources, deeper issues such as changing the way society may have taught the women to see themselves as women, as citizens and as human beings (Hania Sholkamy 2010: 257) must be considered. This becomes important because prevailing social norms and limiting self-beliefs conspire to restrict their ability to re-imagine the horizons of the possible. Also, agricultural norms, standards and policies are gender blind and only focus on increasing agricultural production without addressing workplace bias and the injustice suffered by women extension practitioner's and even women farmers.

Therefore, empowering front-line women extension practitioners and enabling them to grow in their capacity to act as agents of change can significantly increase the effectiveness of extension intervention programs. The findings from this study further shows that women extension practitioners promote the need not to jettison women farmers' growing food crops. The women extension practitioners in the study area are referred to as beacons that motivate the farmers and their female children and are also influential in bringing about women's participation in extension training and services. It is therefore important to eliminate the disparity that exist among men and women extension practitioners. In support with Anu *et al.*, (2021), this study proposed the need for gender-transformative policies in the agricultural sector that address the existing gender disparity and promote gender equality by effecting a change in gender roles.

5.6. Conclusion

Female extension practitioners represent an important link to women farmers, especially girls and female-headed households during or in most extension intervention programs. They facilitate unique extension and advisory services that promote women farmers' rural livelihood, food security and access to communal land rights. To achieve extension goals among women

farmer in our study area, female extension practitioners' partner with non-governmental organizations that focus on using agriculture to empower rural women by helping to conduct training. Although female extension practitioners express a need for empowerment, some senior management and male extension practitioners tend to favour general extension practitioners' empowerment rather than focus on gender-specific needs. Although, there are recognitions of the role of female extension practitioners in promoting gender inclusion in extension services and emphasis on the prospect of their empowerment to farmers, especially women. Their role and needs are still very often being dismissed as irrelevant and needless as recorded in this study by some of the respondents. This study therefore recommends that beyond training and providing resources, deeper issues such as changing the way the society may have taught women to see themselves as women, as citizens and as human beings should be addressed. The parochial view that often limit women extension practitioner's self-belief and roles need to be address. This is important because prevailing social norms and limitation to self-beliefs restrict ability to re-imagine the horizons of the possible. Empowering front-line women extension practitioners' and enabling them to grow in their own capacity is important as this can act as agents of change and significantly increase the effectiveness of extension interventions programs. The study further recommends gender-transformative policies in the agricultural sector, such that address the existing gender disparity and promote gender equality by effecting a change in gender roles, thereby achieving the desired growth in the agricultural sector in South Africa

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CHAPTER 6

Summary, Conclusion, and Recommendation

6.1. Introduction

Numerous studies have shown that agricultural extension intervention is a key element in promoting agricultural development and rural advancement (Anderson and Feder, 2004; Kuyper and Schneider, 2016). In many African countries, extension serves as an essential tool to foster sustainability of farming systems, promote diversification of agricultural production systems, foster food security, and assist farmers in adapting to changing markets (Saito and Weidemann, 1990; Kuyper and Schneider, 2016). Anderson and Feder (2004) argued that the extension's role facilitates networks connecting farmers with scientists, creditors, and consumers. Abdu-Raheem and Worth (2016) emphasize that extension builds capacity of farmers to manage their farm business, the surrounding environments and self-directed learning. In South Africa, extension plays a very significant role in enhancing agricultural production and community development initiatives (Davis *et al.*, 2021). To be effective, extension and advisory services must be available, accessible and relevant (Davis ., 2014).

Price et al (2009:948) found that extension needs to be: “locally relevant; soundly planned (yet adaptive); credible; satisfying; holistic; grounded; and innovative”. Each of these success factors is subjective (Price *et al.*, 2009). This suggests that the success and effectiveness of extension is farmer dependent. One of the points of relevance is gender.

Given the above background, it is important to understand the role of women in extension advisory services. This chapter summarises the main research findings in relation to the aim and objectives of the present study: 1) identify how female extension advisors can help to improve food security, and enhance rural livelihoods; 2) establish the participation level of female agricultural extension advisors in agricultural extension activities in the context of achieving agricultural extension goals; 3) determine the level of technical competence and the empowerment required by female agricultural extension advisors in KwaZulu-Natal, South Africa; and 4) identify and develop responses to the constraints confronting and limiting female agricultural extension advisors in uMgungundlovu District of KwaZulu-Natal, South Africa

6.2. Findings and discussion

This study confirmed that women as extension advisors can have an intense impact on the gender disparity that often characterizes men and women farmers. Although, the constitution of South Africa prominently features the need for gender equity and women empowerment, South Africa is still battling gender imbalances throughout different sectors of its society. In the agricultural sector, women farmers are still far from achieving equal representation and access to critical information and resources compared to male farmers (Simmonds, 2014; Loots and Walker, 2015; Lamontagne-Godwin, 2019).

The study also confirmed the pivotal roles women extension practitioners play in ensuring food security and rural livelihoods particularly at the household level. Further, it identified the need to strengthen their current position through policies and programs that enhance their self-assurance and abilities and provide them with resources to fulfil their roles as change agents – and to create equity for them recognising their essential equality with men while recognising their unique requirements and circumstances. According to Mehra and Rojas (2008), women extension practitioners and women farmers have a significant role in facilitating or shaping food security, agricultural development, productivity, and rural communities' economic development. However, despite evidence from the study demonstrating and supporting this fact, gender-informed thinking and approaches remain missing from many agricultural development policies, strategies, and programs. One untapped source of re-envisioning food security and promoting rural livelihood could be eliminating patriarchal workplace perceptions and gender bias against women extension practitioners. There is a need to soundly address the current institutional prejudice and thinking about women extension practitioners and women farmers if the goals of extension must be attained. While equal to men, they are not the same as men, and the system needs to be cognizant of this reality to release the impact potential of women extension advisors.

Following on the previous point, several studies (Mehra and Rojas, 2008; Flatø *et al.*, 2017; Mamun-ur-Rashid *et al.*, 2017; Lamontagne-Godwin, 2019) have identified increasing the number of women trained and recruited as extension practitioners as a potential remedy to addressing women farmers marginalization. Among other things, the studies argue that women farmers will benefit from being served by women extension advisors. However, the study found that even the evenly split gender composition of extension practitioners in the study did not realise this potential. The women extension advisors in this study gained no advantage and

empowerment; nor did the gender composition offer any boost to achieving agricultural extension goals. Also, by extrapolation, there was no specific advantage for women farmers. This suggests that something more is needed beyond merely increasing the number of trained and recruited women extension advisors. There is a need for a significant organizational shift in the deployment, management, and further development of women extension advisors. The potential impact of the women extension advisors in this study was not leveraged. Their role as change agents was often dismissively regarded as irrelevant and unimportant to revitalizing extension services and activities. Thus, this study argues that although there is merit to increasing the number of women trained, recruited, and deployed as agricultural extension advisors, increasing numbers alone is not sufficient. More work needs to be done to tap into the impact potential of women extension advisors to reinforce and strengthen their unique role in achieving extension goals, and through them the goals of women farmers in particular.

The study found that most smallholder farmers operating at the household level in South African rural communities are women, with most of these rural households headed by women, as seen in the case of Limpopo (49.2%), the Eastern Cape (44.7%), KwaZulu-Natal (43.5%), Free State (41.7%), and Northern Cape (41%). In comparison, the Gauteng and Western Cape provinces have the lowest percentage (30%) of women-headed households in South Africa (Lehohla, 2013; Flatø *et al.*, 2017). Some are either widows, divorced, separated, or single but are mostly involved in subsistence farming (Milazzo and Van de, 2017). These women often engage in subsistence farming and are economically unstable because they lack the cash flow to cater for their households and ensure their livelihoods are sustainable. They are highly vulnerable to poverty given the constraints on their participation within the South African economy. Their low output and poor economic status are often associated with limited access to extension practitioners and a lack of access to productive resources (Myeni *et al.*, 2019). Therefore, adequately addressing the constraint confronting women extension advisors may help increase women farmers' access to information and economic empowerment. Thus, giving a practical expression to gender equity, strengthening household food security, household livelihoods and local economies, and strengthening the whole agricultural sectors and their value chains.

This study also confirmed that women's participation in agricultural extension advisory services across South Africa is still low, indicating a vast gender disparity (Zwane *et al.*, 2017). The study by the Department of Agriculture, Forestry and Fishery (2007) and Worth (2012)

shows that there were approximately 2,210 extension advisors nationally, of which 603 (27%) were female, and 1,607 (73%) were male. According to DAFF (2007), male extension advisors dominated eight of the nine provinces with only KwaZulu-Natal showing 50/50 gender ratio. However, within this imbalance, Mmbengwa *et al* (2009) reported that South African women extension advisors are generally better educated and more exposed to management than their male counterparts.

Nonetheless, despite their lower education levels and lower managerial exposure, more than 80% of management-related positions are occupied by males (DAFF, 2007; Mmbengwa *et al*, 2009; Worth, 2012). Additionally, women extension advisors are reported to lag behind men in terms of the important marketing knowledge and exposure required for a sustainable farm practice (Mmbengwa *et al*, 2009). The findings show that, despite their generally higher qualification attainment, women's level of agricultural training and exposure are inadequate, constituting a major barrier to their extension delivery service. Hence, this contributes to the problem of food insecurity, rural livelihoods, household poverty and the challenges facing farmers in South Africa today (Raidimi and Kabiti, 2017).

The general profile of women farmers and how the constraints confronting women extension advisors clearly suggests that attending to these constraints will further help to ensure the empowerment of women extension advisors in a more proactive and will facilitate the productive and effective delivery of their extension services to farmers. In doing so, it will enhance the overall performance and impact of the entire extension service.

According to Maziya *et al*. (2020), the restricted contribution of South African women in the agricultural sector could be tackled by deploying more women agricultural extension advisors to serve as channels for information on access to markets, land, credit facilities, and other production resources. But in line with the earlier argument on this point, Davis *et al*. (2021) posited the need for extension advisors, especially women, to acquire functional skills required to solve the complex challenges such as climate change, food and nutrition security confronting farmers, a means to be productive and meet the needs of their clientele. Correspondingly, the women extension advisors in this study attributed their limited skills to several prevailing factors such as poor funding available for extension training, family responsibility, pregnancy or childbirth and limited opportunity for self-development. The findings, seen in the light of previous research, highlight the need to develop a highly qualified women extension workforce

with multiple skill sets to promote productivity among farmers, especially women, through empowering them with knowledge and skills related to modern agricultural technologies.

The study further confirmed that extension practitioners require a wide range of skills, technical competence, resources, and training to be highly professional in performing their jobs efficiently and effectively. This applies equally to women and men extension advisors. In practice, the women were offered the same training opportunities as men. However, the women did not advance as fast or as far as their male counterparts. The responses suggested that it was believed that a uniform, one-size-fits-all system was sufficient and that any failure by women rested with the women, not the system. Literature speaks otherwise. Viewing women extension workers' empowerment needs through the lens of training needs and other technical competencies or resource requirements that have been designed around men extension advisors will have far less effect for women than for men. Such an undifferentiated approach ignores deeper issues such as ideology framing women's self-image coupled with the institutional bias against them will inevitably cause women extension advisors to fall behind men because the system is, perhaps unwittingly, designed to marginalize them. Cornwall (2016:356) argues that the empowerment process is complex; it requires more than simply providing access to resources, assets, and services. It requires a shift of perspective and practice and adopting "methodologies that will create spaces for people to build confidence and self-esteem". In consonance with Cornwall's (2016) position, the study expresses the need for a transformative change of institutionally embedded normative beliefs, understandings, and ideas about gender – to the extent of changing the notions of what a woman or a man should be or do, and challenging institutional relations and culturally held understanding of gender identities among extension practitioners.

The study also found women extension advisors simultaneously involved in projects that facilitate food security and improve the livelihoods of women and girls-headed households while also ensuring their right to productive resources and increasing their participation in commercial agricultural production. Lemma (2011) argues that the ultimate test of any extension service or program is how they have increased farmers' knowledge, skills, and innovative capacities. To this point, women extension advisors in uMgungundlovu District of KwaZulu-Natal educate farmers about the decision-making process, promoting capacity building and desirable agricultural development among farmers. Although most of the farmers, including women, claimed that extension visit is inconsistent, women farmers clearly stated

that women extension advisors are far more instrumental in helping them improve their livelihoods compared to men extension advisors. This suggests that, if given a level playing field and required empowerment equal with their men counterparts, women extension advisors can be highly instrumental and serve as an essential mechanism in combating poverty. They can play a more prominent role in the government's quest to reduce food insecurity at the household level. Their empowerment can help improve farmers' knowledge of best agricultural practices, enhance their skills and innovative capabilities, and increase women farmers' involvement in commercial agricultural practices.

6.3. Contribution of the study to knowledge

This study contributes to existing research in two main ways. First, very few studies have systematically and empirically examined women role in extension advisory services, paying close attention their status, challenges, and prospect. Although many studies (Jiriko, 1999; Kabeer, 2005; Raney *et al.*, 2011; Haile, 2016; Luqman *et al.*, 2018; Paroda, 2019) have extrapolate gender-mainstreaming in the agricultural sector, there is a paucity of information on gender inequalities, systemic barriers and discrimination that exist among extension services. This study has established a link between the current limited progress of women farmers and their constricted access to productive resources to the scarcity of women extension practitioners. Previous research (Farnworth, C.R., and Colverson, K.E. 2016; Luqman *et al.*, 2018; Paroda, 2019) documented the significance of women farmers to the agricultural sector, in terms of their labour input and decision making within the household, and their lower and less effective participation in community-level decision-making bodies and in value chain networks. However, this study shows that failure to address institutionally embedded normative beliefs, understandings, and ideas about gender – to the extent of changing the notions of what a woman or a man should be or do – and challenging institutional relations and culturally held understanding of gender identities among extension practitioners will undermine the agricultural extension goals.

Secondly, there are a few previous studies – among them Mehra and Rojas (2008), Flatø *et al.*, (2017), Mamun-ur-Rashid *et al.* (2017), and Lamontagne-Godwin (2019) – that simply emphasis numerical increase of women extension advisors to addressed women farmers problem and attained extension goals. However, this study found that even in the context of the evenly split gender composition of extension practitioners in the study, the women advisors did not realise their potential. Endemic and institutionalized gender bias continued to plague

them. Therefore, this study argues the need for a significant organizational shift in the deployment, management, and further development of women extension advisors not only as a means to open pathways for women extension advisors, but as a means to revitalizing agricultural extension services as a whole – in equal measure due to the impact on women advisors in terms of their own development and contribution to the aims of extension and to the potential for enhancing the effectiveness and contributions of women farmers. Although there is merit to increasing the number of women trained, recruited, and deployed as agricultural extension advisors, true change will be effected only when there is innovative rethinking and radical fundamental change to address the deeply-rooted and persistent gender disparity that exists within extension services. This thinking and change must move far beyond merely providing access to resources, and training to women. It must challenge and correct a system that is defined and governed by male-centric standard and values – to the detriment of all.

6.4. Implication for extension goals and policy

In the main, the study confirmed what is well known about extension. The transfer of knowledge from researchers to the farmer is featured prominently in the universal goals of extension. Other extension goals include advising farmers and educating them on how to make better decisions, enabling them to clarify their own goals and possibilities, and stimulating desirable agricultural developments (Anderson and Feder, 2007). In South Africa, extension goals are targeted toward ensuring that all actors in the agricultural value chain enjoy equitable and maximum access to knowledge and skills development that enhances farmers' capacity to explore opportunities for the advancement of their livelihoods (DAFF, 2016). South Africa's extension policy, aiming to promote effectiveness and efficiency among extension advisors and facilitate knowledge transfer and skills development among farmers, will not be achieved without the empowerment and inclusion of women extension advisors. To attempt to achieve extension goals without actively involving women farmers and extension advisors may be counterproductive and not reach the desired impact. Hence, to achieve a high return on investment in extension in KwaZulu-Natal, South Africa, there is a need for an empowerment framework that challenges the limiting, parochial workplace perception of women, and promotes more specialized training for women extension advisors.

Giving this deeper consideration, gender, generally and in the context of agriculture and agricultural extension, covers a wide range of factors. It includes the role of women in

agriculture (including primary production, post-harvest processing, and food and nutrition security), the needs and preferences of women farmers, challenges women farmers face, and women in extension services and their needs, preferences, and challenges. On a more nuanced level, gender touches on societal norms, historical patterns of thought and action, and entrenched institutionalised behaviour.

While this study focused narrowly on women extension practitioners, it unavoidably had to touch on gender on a wider front. This to give context to the challenges of women extension agents, but also to acknowledge the interlinking of issues shared with women farmers. A challenge of this study was to dislodge institutionalised responses that operate within patriarchal, male-biased systems that govern the agri-food system and including the supporting services of which extension is one.

Thus, there are two sets of findings in this study. One set of findings, obviously, is findings based on the data generated by the uttered responses of the participants. They said what they said. The content can be (and was) analysed at face value. The other set of findings was implicit. Often this set of findings emerged from what was not said, and *how* things were said. It was also influenced by the range and nature of the government policy and practice that guides and otherwise frames the theatre of operation for extension.

The findings of the study are, in many ways, predictable. Gender sensitivity exists in policy. Commitment is presented in clearly worded statements supporting the ideal of gender equality. The issues faced by women as identified by the respondents were predictable. What was perhaps less predictable was the depth to which the essential elements of gender (as articulated, for example, by Cornwall (2016), were simply ignored. Gender and the issues relating thereto present a 'box-ticking' exercise of compliance at the minimal level. There is no evidence of a fundamental understanding of the extent to which systems must be redesigned to create greater gender equity and foster the real advancement of women. Women extension practitioners (and farmers) are expected to operate in a context where the norm is determined by male-centric values. Comments made by respondents along the lines of "they all have the same opportunities" are dismissive of the reality's women face. Their dual role of home and work is often not given the consideration it is due.

This dynamic presents a number of challenges. First, although recruitment policy favours appointing women, the attending human resource policies do not appear to enable women to

advance as easily as men. Second, while women farmers appear to advance better when working with women extension practitioners, there are few women extension advisors and those that are appointed are hampered from performing at their best. As argued by Mamun-ur-Rashid *et al.* (2017), the paucity of women extension advisors is a constraint to improving the delivery of agricultural services to women. Further, as argued by Haile (2016) and Ofuoku and Ekoehi-Robinson (2018) the importance of women in extension advisory services clearly suggests that involving women in agricultural extension services will serve the broader purpose of eliminating the biases and marginalization of women farmers in the implementation of extension services. This will help remove the gender gap between men and women farmers and promote women farmers' access to relevant modern technology. This will further offer the prospect of transmitting useful information to farmers to help them address their various farming problems while removing social barriers to male-female interactions and promoting rural household livelihood and food security.

6.4. Conclusions and recommendations

The findings show the increasing importance of extension workers in providing a way out of the challenges of underwhelming yield, low water availability, crop insect-pest attacks, outbreaks of crop diseases, and poor marketing outlets – all of which impact food and nutrition insecurity (Al-Shayaa *et al.*, 2012). In the context of proffering solutions to farmers' challenges, extension advisors are tasked with building farmers' capacity to solve their problems themselves (Worth 2009; Ndlela and Worth, 2021). To facilitate extension advisors' role as the drivers of rural economic development, leading to food security, rural livelihood sustainability, and reducing and ultimately eliminating poverty, particularly among smallholder women farmers, women must be adequately involved. Women extension advisors will serve as the backbone to actively assist women farmers in growing and developing the needed technical prowess and organizational and management skills to enhance their role in and contribution to the agricultural sector. One such facet is shifting of the focus from access to markets to market ownership (S Worth, personal communication, 25 March 2022).

Although South Africa's agricultural extension remains a sector with stark gender imbalance, gender equity is featured in South Africa's transformative national policies. Women extension advisors and farmers are confronted with inequality across different provinces. However, in our study area (KwaZulu-Natal), women extension advisors stand alongside men in terms of personnel ratio. However, their prospects have not been fully explored because of inadequate

agricultural training and exposure (Chapter 2). Raidimi and Kabiti, (2017) also demonstrated that inadequate training of women extension advisors accounts for the poor delivery of their extension services. They further stated that it contributes to the challenges of food insecurity, rural livelihoods, household poverty and the challenges facing farmers, especially women in South Africa. Therefore, given the importance of extension services to achieving the aims of agricultural developmental policies and programs, there is a need for fairness in representation, participation, and benefits afforded to women and men. There is, therefore, a need to address specific issues unique to women extension advisors and farmers to achieve the desired results.

The study confirmed that the empowerment of women extension advisors is essential to sustainable agricultural development and women farmers' empowerment, given the various extension delivery services they carry out among women farmers. However, their skills deficiency in specific areas such as digital literacy, project management, marketing etc., could post a great barrier to effective and efficient service delivery by women advisors'. Barring this limiting component, and given their empowerment, women extension advisors will be instrumental to and hold a great prospect in the fight against poverty among rural farmers, especially women. They can help increase women farmer productivity, improve livelihoods, and contribute to the household and national poverty reduction while promoting economic growth.

6.5. Recommendations

The study makes the following recommendation on the need to redefine and refurbish women's participation in extension delivery services among farmers in KwaZulu-Natal Province and possibly in South Africa in general:

1. Women extension advisors' operation is dependent on the prevailing National and Provincial Policy and Institutional frameworks. Yet women extension advisors have very limited or no influence on these policies and frameworks. Further, these policies and frameworks are implemented a system determined by male-centric values. Thus, to help ensure that the policies and frameworks reflect the unique circumstances and requirements of women extension advisors, women extension advisors need specifically and particularly to be involved their development, implementation and evaluation. Their voices must be heard.

2. An honest assessment and reorientation of the male-centricity of the extension services system is required to the end of effecting change in the highly entrenched patterns which prejudice the advancement of women extension workers to develop a system that recognizes and values the unique circumstances and requirements of women extension advisors – and recognizes that although women and men are equal, they are not the same and that the differences must be accommodated in policy and practice.
3. Improve training for both women and men extension advisors. There is a need for more specialized training of extension advisors, especially in soil identification, use of digital tools, fertilizer application, marketing, project management, smart climate agriculture, etc. This will enable women advisors to provide effective and efficient agricultural delivery services and mentor rural farmers, facilitating knowledge transfer and capacity building. Additionally, access and opportunity for training for women extension advisors needs to accommodate their unique circumstances and requirements. And the training content itself should extend that accommodation to the circumstances and requirements of women farmers.
4. It is recommended that extension support is fully entrenched within the livelihood frameworks of farmers. This would ensure that extension activities, time and intellectual assets look beyond farmers' primary production activities to a wider extension Interaction. This will enable farmers to identify other opportunities that boost their livelihoods, eliminate poverty, and further promote household food security, especially among women and girls. To achieve this, special attention will probably need to be given to expanding the awareness of and access to extension services. It will no doubt also require significant reorientation of the goals, objectives and operational activities as well as the performance management of the service.

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