

EXPERIENCES OF FEMALE AGRICULTURAL OFFICERS IN PAPUA NEW GUINEA



Matilda R. Hamago

2021

A study of
the coffee,
cocoa and
oil palm
sectors

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Cover photo: Female extension officer, Baira, Eastern Highlands Province

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Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AAK	Apo Angra Kange
APAARI	Asia-Pacific Association of Agricultural Research Institutions
ACIAR	Australian Centre for International Agricultural Research
AIM	Australian Institute of Management
ARoB	Autonomous Region of Bougainville
CABI	Centre for Agriculture and Biosciences International
CBOs	Community Based Organisations
CCI	Cocoa and Coconut Institute
CPB	Cocoa Pod Borer
CIC	Coffee Industry Corporation
CIMC	Consultative Implementation and Monitoring Council
CRP	Customary Rights Purchase
DRDOs	District Rural Development Officers
DSIP	District Services Improvement Program
EHP	Eastern Highlands Province
ENBP	East New Britain Province
ESP	East Sepik Province
FAO	Food and Agriculture Organisation
FFTP	Family Farm Team Program
FEOs	Female Extension Officers
FFB	Fresh Fruit Bunch
IATP	Integrated Agriculture Training Program
LSS	Land Settlement Scheme
LLG	Local Level Government
LUCDF	Lower Unggai Community Development Foundation
MEOs	Male Extension Officers
MLF	Mama Loose Fruit
MTDS	Medium Term Development Strategy
NADP	National Agriculture Development Plan
NDAL	National Department of Agriculture and Livestock
NGOs	Non-Government Organisations
NES	Nucleus Estate Smallholder
NBPOL	New Britain Palm Oil Limited
NIP	New Ireland Province

OPIC	Oil Palm Industry Corporation
OPRA	Oil Palm Research Association
PNG	Papua New Guinea
PDAL	Provincial Department of Agriculture and Livestock
PDPI	Provincial Department of Primary Industry
RSPO	Roundtable discussions on Sustainable Palm Oil certification
UNDP	United Nations Development Program
UNRE	University of Natural Resources and Environment
VCEs	Village Community Educators
VOP	Village Oil Palm
VAC	Vunaiting Agro-farmer's Cooperative
WNBP	West New Britain Province

CHAPTER 1

Introduction

Agriculture is not simply an economic activity, but rather a social enterprise that is influenced by family roles, inter-personal relationships and gender norms. These complex dynamics often drive if and how individual households' members especially women contribute to and benefit from agricultural-related activity, including their participation in programs designed to enhance smallholder productivity (Anjala, 2012, p. 3).

For any successful agricultural extension program, the challenge lies in going beyond the technical agricultural issues to address the underlying gender-related norms, priorities and constraints that can prevent women farmers and female extension officers from reaching their full potential in agricultural work. The above quote summarises the key themes of this report which examines the role of female extension officers in PNG. The report examines the experiences of female extension officers working in the major export cash crop sectors of coffee, oil palm and cocoa. While coffee is the focus of the report, information from the oil palm and cocoa industries provides a good comparison with coffee. Some of the lessons, pitfalls and successful strategies from the oil palm and cocoa industries can be utilised to inform and develop coffee extension strategies. The report's attention is at the smallholder household level and at the institutional level of the three major agricultural export commodity organisations in Papua New Guinea (PNG).

This study was undertaken in 2017-2018 in Eastern Highlands Province (EHP), West New Britain Province (WNBPN) and East New Britain Province (ENBP). The three provinces were selected because they are the major producers of coffee (EHP), palm oil (WNBPN) and cocoa (ENBP) (Figure 1). These three provinces also have the head offices of the major extension agencies (institutions) of the export crops examined in this report.

Overview

Women in PNG are major players in agriculture. They contribute significantly to household food production and household income through their labour input in subsistence farming as well as in export crop production (Overfield, 1998; Koczberski *et al.*, 2001; Curry *et al.*, 2007; Linibi, 2009). Previous studies have reported that women contribute immensely to household production of coffee, cocoa and oil palm, yet are unfairly compensated for their labour relative to men (Overfield, 1998; Koczberski *et al.*, 2001; Cahn & Liu, 2008; Ajani & Igbokwe, 2011; Inu, 2015; Pamphilon & Mikhailovich, 2017).

Despite the significant involvement of women in agriculture in PNG, agricultural extension work has been largely male dominated, and women's roles in export cash crop production has been largely unrecognised. While there have been several reviews and reports documenting extension in PNG and assessments on the effectiveness of extension (e.g. Mendano, 2012; Sitapai, 2011; 2012), few have considered female extension officers and women's roles in household export crop production. Furthermore, very little is known about the participation and involvement of professional career women in agriculture: for example, female agricultural extension officers who often drive change and impart agricultural knowledge and skills to both female and male (smallholder) farmers. This report aims to address this knowledge gap.

This report begins with a background introduction to export commodity crop production in PNG, followed by a brief description of the study sites. The objectives of this report and the significance of the study are also presented in this chapter.

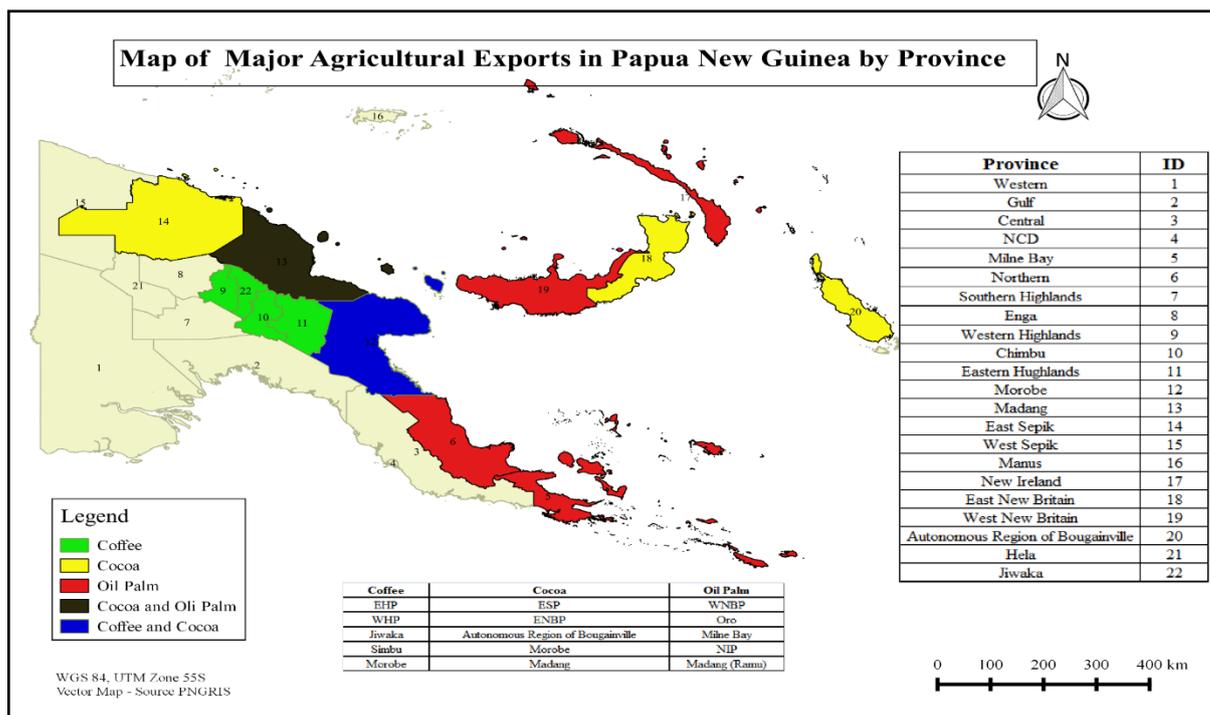


Figure 1: Main export commodity crop growing provinces of coffee, oil palm and cocoa in PNG (Source: Map produced by Kingsten Okka, 2017).

Background to export commodity crops in PNG

The production and sale of cash crops is an important source of income at the national and household levels in PNG (Bourke & Harwood, 2009). The majority of rural Papua New Guineans earn income from the sale of commodity export tree crops, with coffee, cocoa and oil palm being the main export cash crops. In declining order of importance by value, PNG's major agricultural export crops are palm oil, coffee, cocoa, copra oil, vanilla, tea and rubber (Bourke & Harwood, 2009).

Coffee

Coffee is grown in 17 of the 22 provinces covering all four regions of PNG including the Highlands, Momase, New Guinea Islands and Southern regions. As noted by Sengere (2016), 90% of the national coffee production is mainly Arabica coffee which is produced in the Central Highlands region. Most of the Highlands coffee is produced in the Western Highlands Province (WHP), Jiwaka Province and EHP (Figure 1).

There are approximately 2.5 million people representing 524,400 households engaged in coffee production in PNG (Bank of Papua New Guinea, 2016). It is the main source of income for most households in the highlands of PNG and as noted by Sengere (2016, p.7) "coffee is embedded in a wider socio-economic and political landscape in rural areas of PNG".

Thus, it has a major influence on the socio-economic and political lives and activities of farmers.

In 2019 coffee earned foreign exchange proceeds of K415.18 million, slightly less than in 2018 (Bank of Papua New Guinea, 2016). In 2006, oil palm surpassed coffee and became PNG's leading export commodity crop. However, a smaller proportion of the rural population is engaged in growing oil palm with only 33% of oil palm produced by smallholders (Koczberski *et al.*, 2001). In contrast, coffee is predominantly a smallholder crop. Coffee accounts for 85% of total coffee production (CIC, 2008).

Oil Palm

PNG's smallholder oil palm sector represents 40% of the total area planted with the balance as plantation estates owned by large international companies. Approximately 200,000 people's livelihoods are dependent on oil palm (Koczberski *et al.*, 2001; CIMC Workshop, 2011, p.35; Fisher *et al.*, 2012). The oil palm industry has been a strong performer and is now the country's leading export tree crop. It is expected to continue to increase with further industry growth. In the last 20 years, oil palm production has grown at a much greater rate than any other export tree crop (Bourke & Harwood, 2009).

Smallholder oil palm is grown in six project sites in PNG. These include the Hoskins and Bialla areas of WNB, Higturu in Oro (Northern) Province, Alotau in Milne Bay Province, Lakuramau in New Ireland Province (NIP) and in the Ramu and Markham valleys in Madang and Morobe Provinces respectively (Figure 1). All these developments are based on the nucleus estate-smallholder (NES) model whereby smallholders grow oil palm, and supply oil palm fruit to the mills owned and operated by the estate companies. Under the NES models, the milling companies also provide technical services to smallholder producers (Mendano, 2012), and all the companies and their associates and communities have roundtable discussions on sustainable palm oil (RSPO) certification. More recently, new oil palm developments have started in PNG. These new players operate with special agriculture business leases (SABL) and none has RSPO certification (see Nelson *et al.*, 2013).

Cocoa

Cocoa is the third largest agricultural export tree crop in PNG and more than 80% of cocoa in PNG is produced by over 150,000 smallholders farming less than 5 ha of land (Lummani, 2003; Bourke & Harwood; 2009; CABI, 2016). Despite PNG's place in the world as a supplier of fine flavour

cocoa and a rising global demand for cocoa, the cocoa industry in PNG is in crisis with the infestation of Cocoa Pod Borer (CPB) (Curry *et al.*, 2007). CPB has been a threat to the industry since 2006. In ENBP, for example, cocoa production fell by 81% from 2006 to 2012 (Figure 2; see also CABI, 2016).

Cocoa was initially a plantation crop grown by European expatriates during the colonial administration period before 1950. However, after 1950 the Australian Administration introduced and promoted the crop among smallholders. Smallholder cocoa plantings increased after 1965 and by mid-1980s contributed approximately 70% to national cocoa production. In the 1980s, many of the former plantations were returned to the traditional landowners who then operated the facilities with the assistance of relevant management agencies (Lummani, 2003). Plantations operated under high farm input conditions while smallholder growers relied heavily on family labour and practised a low farm input strategy.

Cocoa is grown in 14 of the 22 provinces of PNG. In the 1980s, the main cocoa producing provinces in PNG were Bougainville producing about 49% of PNG's cocoa prior to the civil war, ENBP (31%), Madang (6%), ESP (5%) and other provinces (9%) (Lummani, 2003). However, with the incursion of CPB, cocoa production declined significantly in the traditional high cocoa producing provinces such as ENBP and the Autonomous Region of Bougainville (ARoB) (formerly Bougainville) (Figure 2). In ENBP cocoa production has declined from 16,930 tonnes in 2007 to 5,392 tonnes by 2017/18 (PNG-CB, 2018). ESP is making up for some of the decline in the formerly high producing provinces.

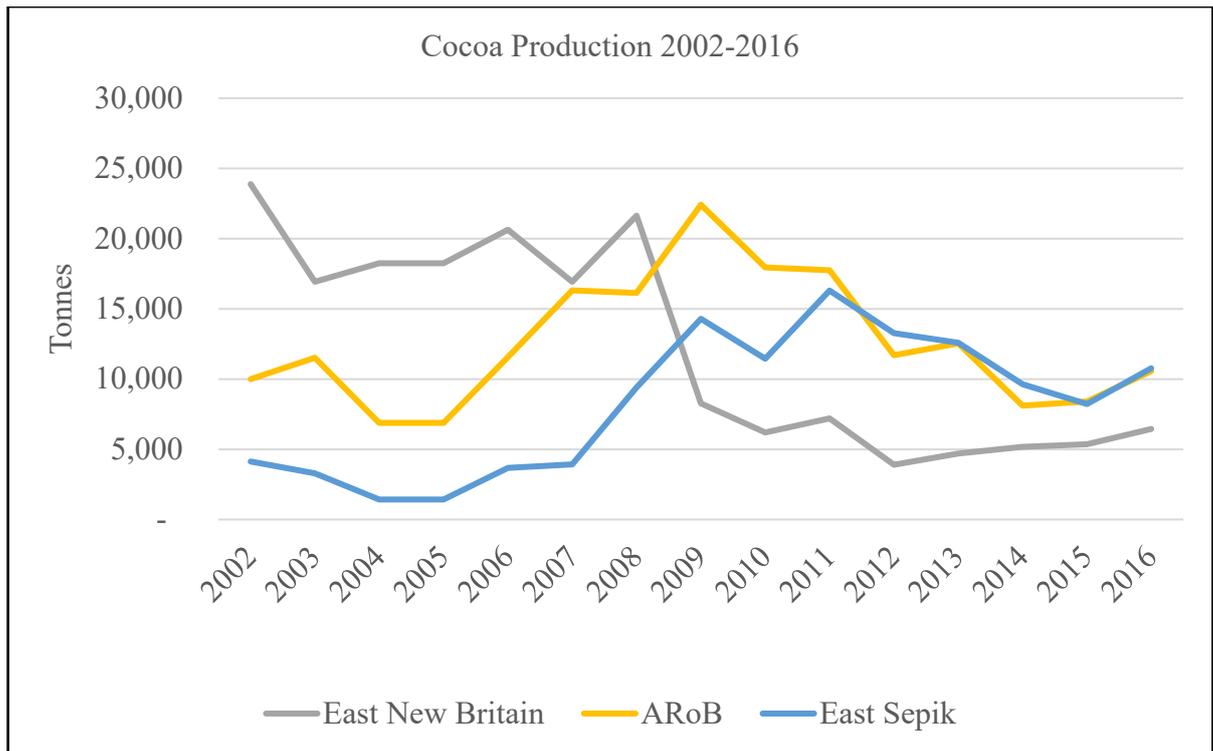


Figure 2: Cocoa production in the three top cocoa producing provinces of PNG in 2016 (Source: Data held by PNG Cocoa Board 2018).

Despite the significant contribution of coffee, oil palm and cocoa to smallholders' household income, their yields relative to plantation production per hectare is low (Bourke & Harwood, 2009). Although a few technologies have been developed to increase productivity in export cash crop production, the adoption rate by smallholders has been very low (Omuru, 2003; Apis *et al.*, 2013). The low adoption rate by most smallholder cash crop farmers in PNG is partly because farmers are reluctant to take risks and because most smallholders utilise a low labour input system of production that results in low productivity levels compared to plantation levels (Koczberski 2001; Curry *et al.*, 2007; Inu, 2015). Also due to the lack of effective and regular extension training and services to smallholders, many smallholders do not hold the necessary knowledge or motivation to increase production. For example, while farmers know that pests and diseases contribute to crop loss, they have very limited knowledge of pests and disease control and limited ability to apply appropriate control measures. In cocoa, through field observations, it was revealed that farmers commonly accept and tolerate high rates of losses from pests and diseases (Curry *et al.*, 2007). Also, many coffee farmers display very little understanding of the relationship between shade levels and the occurrences of the three common pests and diseases: green scale, pink disease and coffee leaf rust (Curry *et al.*, 2017).

Studies have identified other socio-cultural factors that constrain smallholder productivity in cocoa, coffee and oil palm (Curry *et al.*, 2017; Koczberski *et al.*, 2001). Apart from constraints on the supply of labour, the low levels of farm inputs, tools and equipment often result in very inefficient use of labour and low returns to labour. Poor transport infrastructure and limited access to markets and other socio-economic factors explain the low productivity of smallholders. In coffee, for example, poor market access, inadequate technical knowledge of coffee farming and senile coffee tree stock all explain the low production levels of smallholders (World Bank, 2009; Curry *et al.*, 2017).

Smallholder female farmers in PNG and extension

The National Agriculture Development Plan (NADP) was developed by the National Department of Agriculture and Livestock (NDAL) under the Medium-Term Development Strategy (MTDS) (2005-2010) as one of the Government's sector programs for economic recovery and development. The NADP is the vehicle through which the Government intends to refine and implement its sector strategies as formulated under the MTDS. It aims to bring about rural development and poverty reduction through export-driven economic growth, health, education and agriculture development (NDAL, 2007). In pursuing its vision and mission, the NADP has identified several goals and purposes, one of which is to give greater recognition to women's contribution to agriculture and increase opportunities for women's decision-making in agriculture (NDAL, 2007).

The National Agricultural Development Plan 2007-2016 (NDAL, 2007) acknowledges that women contribute between 50-70% of agricultural labour. Even though female smallholder farmers are the major producers of subsistence food in PNG, inputs by women into agricultural production and their roles as economic agents are often not recognized. Rather, women's roles in family care and their domestic responsibilities in household management are emphasised and, hence their roles as agriculture producers and economic agents are often devalued (Koczberski, 2007; Manchon & Macleod, 2010).

The main constraints women face in the agricultural sector in PNG include limited access to productive resources such as land, lack of access to credit, and low education and literacy levels (FAO & UNDP, 2002; Ellis *et al.*, 2006; Fletschner, 2008; ACIAR, 2014). Like women elsewhere, women in PNG are also disadvantaged by limited access to formal training programs and extension services (Meinzen-Dick *et al.*, 2010). As Murray-Prior & Padarath (2013, p. 9-10) state: "While extension can help in improving productivity

and overall wellbeing, rural women tend to make less use of or simply have less access to extension services". In PNG, while there is a long tradition of providing agricultural extension and training, much of the farmer extension training for export crop production largely benefits men, who typically control the income from the crops. Fewer resources and attention are given to women than men, and extension and training in rural livelihoods has focused on the needs of men, thereby creating a barrier for women (Cahn & Liu, 2008). Women are largely excluded due to discrimination in extension, their lower levels of literacy and education, family responsibilities and the daily demands of subsistence activities which prevents many from participating in farmer training. Women are also often excluded from extension training because policy makers focus on cash crop production and technology transfer and do not recognise the importance of the subsistence and the informal sector where women dominate (Fairbrain-Dunlop, 1997).

The PNG situation is like other countries where women play an important role in agriculture. According to Hill (2011), in an FAO survey of extension coverage in 97 countries, only 5% of all extension resources were directed to women. Furthermore, the same study showed only 15% of extension personnel were women. However, one recent extension program that has been introduced in PNG and has specifically targeted female farmers, is the family farms team program that operated in ENB and Western Highlands (Pamphilon, & Mikhailovich, 2017). The Family Farm Teams Program (FFTP) has two aims. The first aim is to develop experimental learning modules to assist male and female farmers to consider their family roles and develop them in a way that would improve and benefit the family farm. The program has four learning modules, including: (1) Working as a family farm team for family goals; (2) Planning your family farm as a family team; (3) Communication and decision-making as a family farm team; and (4) Feeding your family farm team.

The second aim of FFTP is to train and build local teams of village community educators (VCEs). The VCEs, many of whom are women contribute their local knowledge to the design and delivery of the learning modules. After each learning module, the VCEs apply the learning in their own family, then share the learning with their extended family and clan, and with groups through their local networks or affiliations such as churches. The FFTP has demonstrated the effectiveness of working with men and women farmers in PNG. Both men and women found the family teams' approach to farming activities relevant and constructive, and its approach proved to be an effective way to facilitate more equitable and harmonious family environments for women (Pamphilon & Mikhailovich, 2017). The next chapter describes the methods adopted in this study.

CHAPTER 2

Methodology

The study used a mixed method approach. This included structured surveys, semi-structured and informal interviews, focus groups, observations, secondary data, such as government, organisational and industry reports and documents, and industry website pages. This approach was considered the most suitable method to enable an in-depth understanding of the experiences of female extension officers which are presented in this report. Also, mixed method approaches have been commonly and successfully used in smallholder socio-economic studies in PNG that have investigated problems faced by smallholder farming communities and evaluated extension programs and interventions (e.g., Koczberski *et al.*, 2001; Koczberski & Curry 2003; Curry *et al.*, 2007; Cahn & Liu 2008; Chambers *et al.*, 2011; Apis *et al.*, 2013; Chang *et al.*, 2013; Palaniappan *et al.*, 2013; Pamphilon *et al.*, 2013; and Spriggs *et al.*, 2013).

Fieldwork and data collection

The bulk of the data collection in ENBP, WNBP and EHP was carried out over nine weeks from 6th February to 12th April, 2017. Three other minor study sites were chosen to undertake interviews with female and male extension officers working in coffee. These minor sites were in the provinces of Morobe, Madang and Oro. In January 2018, a follow-up trip of three weeks was undertaken to collect additional data and fill gaps in my data collected in 2017 (Table 1).

The main respondents were:

1. Female Extension Officers;
2. Male Extension Officers;
3. Female Farmers;
4. CARE Graduate Program, female agricultural graduates;
5. CARE Graduate Program, CARE staff members; and,
6. CARE Graduate Program: Private sector supervisors.

Data sourced from surveys, interviews, focus group discussions and documents regarding the three export cash crops were verified through triangulation. The female farmers who participated in the interviews and focus group discussions were members of Cocoa Cooperatives, Coffee Farmer Groups, and women who benefited from the Mama Loose Fruit

scheme (MLF). The data sourced from the male extension officers were recorded on the questionnaire sheets while all the other qualitative interviews with the female extension officers and female smallholder farmers were audio-recorded (see Plate 1). The data from the interviews with male extension officers provided a basis to compare the way in which the female extension officers' stories were different from the men's stories. This also assisted in identifying the gendered nature of the narrative stories of the everyday experiences of extension officers.

Furthermore, given my close working relationship and experiences with farmers, especially smallholder coffee farmers, I am familiar with the socio-cultural context of the respondents. This assisted me when conducting interviews and analysing my data. Moreover, I am also aware that because of my experiences with the coffee farmers and their socio-cultural environment context, it may have some influence on my interpretation of the data collected.



Plate 1: Interviewing female oil palm farmers at a Morokea Customary Rights Purchase block in Hoskins, West New Britain Province.

Sample selection and data collection

Public Sector female extension officers

My interviewees included: a total of 12 female extension officers with representation in all three export cash crops (Table 1). The sample size of the FEO respondents is small because there are very few public sector female extension officers in PNG. In 2017, there were approximately 20-30 female extension officers across cocoa, coffee and oil palm in PNG. Thus, I interviewed around 60% of the total FEOs in these industries. Most of them had over ten years of experience. There were three female extension officers in CIC interviewed. For confidentiality, the provinces where the three CIC's FEOs are living and working are indicated as 'X', 'Y' and 'Z' respectively. 'X' and 'Y' Provinces were briefly visited to interview CIC female extension officers while another female officer from 'Z' Province was interviewed while she was doing her fieldwork in EHP. In the oil palm industry, the six female extension officers were working for Oil Palm Industry Corporation (OPIC), and for cocoa I interviewed three female District Rural Development Officers (DRDOs) from the Provincial Department of Primary Industry (PDPI). At the time of fieldwork there were no female extension officers employed by CCI¹.

Interviews with the FEOs began by collecting their biodata (personal information) such as their names, the year they joined their organisation, current position, age category, home province, education level, marital status and commodity type. An interview guide sheet was used to collect information on recruitment, first job with an extension organisation, feelings of being newly employed, deployment, attitudes of male officers, years of employment, promotions, capacity building, and the everyday challenges and experiences as a female extension officer. Questions were also asked about the officers' experiences of working with women farmers in export crop production, community acceptance of female extension officers working with male farmers and any additional comments that the interviewees wished to provide.

For these interviews, I drew on my own 22 years of experience as a FEO as well as being a research field assistant prior to joining CIC in 1998. I have much experience of working in a male dominated environment facing many challenges, capitalising on available opportunities as well as working very hard trying to earn the trust and respect of my male colleagues. Most recently I worked as the Training Course Coordinator, which is also a male dominated environment. Furthermore, I also had extensive work

¹ CCI has been restructured and is now a part of the PNG Cocoa Board.

experience with smallholder coffee farmers. Thus, I am very familiar with the experiences and the socio-cultural context of my respondents working environment. The three DRDOs are the only female DRDOs heading the three out of the four districts of ENBP. These DRDOs are government officers performing duties of extension officers in the public sector.

A total of 17 male extension officers (MEOs) were surveyed and interviewed across the three export crop sectors. Eight MEOs out of the total of 22 officers employed by CIC were interviewed. Six male extension officers from OPIC and three from the CCI also participated in the interviews (see Table 1). Each officer began by completing a short questionnaire survey during the meeting. The interview questions for male extension officers were designed to elicit information on employment history, attitudes of male colleagues to working with female extension officers, promotions, human resource capacity building, major challenges or constraints when working with female extension officers, major challenges or constraints when working with female smallholder farmers. These questions were aimed to collect male views on the involvement of women as female extension officers and women's involvement in export cash crop production.

Female farmers

Female farmers were selected from the successful Lower Unggai Community Development Foundation (LUCDF) women farmer's group in coffee. Female farmers for cocoa were members of the Vunaiting Agro-farmers' Cooperative (VAC). There were four members of each group taking part in the interviews bringing it to a total of eight female farmers interviewed in both coffee and cocoa (Table 1). In the oil palm industry, the female farmers were not randomly selected but were targeted in their selection. I wanted to interview women who were part of the Mama Loose Fruit (MLF) scheme. The MLF extension officers assisted me to identify the women and a total of 19 women were interviewed. Interview guide sheets were prepared for the women farmers in coffee, cocoa and oil palm. Each guide sheet was designed to pick up on the main issues for each crop. For oil palm, questions were focussed on the Mama Loose Fruit scheme.

CARE International (PNG) graduate program

Three out of the total four female officers in the CARE graduate program were interviewed. These officers were with two major coffee export companies located in Goroka and Monpi Coffee Exports. The Supervisors from these two organisations were also interviewed. One from PNG Coffee Export/'Apo Angra Kange' Cooperative (AAK), while four supervisors from

the Sustainable Services Section of Monpi Coffee Exports participated in a focus group discussion I conducted. The CARE staff member, who was heading the CARE graduate program at Goroka, was also interviewed to capture her views on the program.

Interviews with female graduates began by collecting their biodata such as their names, the organisation they were attached with, home province, tertiary educational level, marital status and age category. The interview focussed on the main components about the CARE Graduate Program, duration of the program, why they applied for the program and their expectations, their experiences with the program and recommendations. Questions were asked on the attitudes of male extension officers from partner organisations, experiences working with female farmers, and the challenges or constraints they faced carrying out their work at the village level. The interviews with supervisors were designed to pick up on the main aspects of the CARE Graduate Program and their thoughts about the effectiveness of the CARE Graduate Program, the organisation's involvement in the program, advantages and disadvantages of the program, and how the program could be improved. Questions were also asked on their thoughts about the quality of the female agriculture graduates participating in the program, recommendations and any additional comments they wished to provide regarding female extension officers working with rural farming communities.

The interview with the coordinator of the CARE Graduate Program collected information on the CARE Graduate Program and the organisation's experiences of working with women coffee farmers, attitudes of women coffee farmers to extension, their thoughts on women's involvement and participation in export crop production, and the challenges or constraints faced by both female extension officers and female farmers.

Table 1: Respondent information, data collection methods and topics covered.

Respondents	Number	Methods	Topics covered
Female Extension Officers (FEOs) Coffee = 3, Cocoa = 3, Oil palm = 6	12	Face-to-face interviews using oral history and individual testimonies as an approach.	In-depth personal/life experiences/testimonies. Year of recruitment, feelings of being employed, first deployment experiences, number of years employed, job experiences over the years, recognition through promotions, experience through human resource capacity building training, constraints faced in execution of duties.
Male Extension Officers (MEOs). Coffee = 8, Cocoa = 3, Oil palm = 6	17	Face to face structured interviews through standardised questionnaire.	Collegial experiences working with FEOs, advantages and disadvantages of working with FEOs. Should more women be employed as extension officers and why?
Successful female smallholder farmer groups (coffee, cocoa & oil palm). Coffee = 4, Cocoa = 4, Oil palm = 19	27	3 x case studies (one case study each for a successful women's farmer group in coffee, cocoa and oil palm). Coffee (n=4 members) Cocoa (n=4 members) Oil palm (n=19 members)	Multiple case study approach. Information gathered through qualitative interviews, focus group discussions and observations. The topics covered were from the semi-structured interview transcripts appropriate to each case study group of coffee, cocoa and oil palm.
Female agriculture graduates from CARE International (PNG) Graduate Program.	3	Face-to-face interviews using oral history and individual testimonies as an approach.	Knowledge about the CARE graduate program, duration of the program, why applying for the program, expectations from the program, experiences about the program, recommendations, attitudes of male extension officers from partner organisations, experiences working with women farmers, challenges or constraints faced and additional comments.
Supervisors from partner organisations taking part in the CARE Graduate Program (PNG Coffee Export/AAK)	1 4	1x case study with supervisor from PNG Coffee Export/AAK Cooperative. 1x focus group with 4 staff members from Monpi Coffee Exports, Sustainable Services Section.	Thoughts about the CARE graduate program, organisation's involvement in the program, advantages and disadvantages of the program, how the program can be improved, thoughts about female agriculture graduates participating in the program, recommendations and additional comments. Thoughts about the CARE graduate program, organisation's involvement in the program, advantages and disadvantages of the program, how the program can be improved, thoughts about female agriculture graduates participating in the program, recommendations and additional comments.
CARE staff: The Graduate Program Coordinator.	1	Qualitative interviews through oral history e.g. Case studies through "Individual Testimonies".	Recruitment history; years of service; first job with organisation; position; experiences of working with women coffee farmers; attitudes of women coffee farmers; thoughts on women's involvement and participation in export crop production; challenges or constraints faced.

Data Analysis

After returning from fieldwork, the audio recordings of all the interviews were replayed and transcribed to identify themes and patterns. Field notes and hand-written responses taken during interviews were reconciled with the audio recordings to confirm accuracy of the interview data. This also formed the basis of my quality checks on the data collected.

Interview data were then sorted into six main categories and coded by themes for easy analysis and identification of common themes, topics, concerns, and experiences that emerged from the interviews. The data were then analysed for each of the main respondents' groups (FEOs, MEOs, female farmers, CARE Graduate Program female officers, staff and organisational supervisors). The data were then used to develop case studies and stories.

CHAPTER 3

Work Related Experiences of Female Extension Officers

Recognizing women's involvement in commercial crop production and ensuring that they benefit from research, extension, credit, land tenure rights, market access and other elements of production, innovation and participation still requires a significant organisational shift in many agricultural services (Mehra & Rojas, 2008, p.1).

Although there have been significant improvements for women in the workplace in PNG, particularly in terms of career opportunities, difficulties for women continue to exist (Mate, 2013). This chapter aims to develop an overall narrative that explores how female extension officers experience everyday work activities as well as to capture the constraints and challenges they face. It also examines the most frequent experiences of female extension officers in the three different commodity crops. Case studies are used to highlight the constraints on female extension officers' recruitment, training and their everyday work activities. I begin by providing an overview of the main characteristics of female and male extension officers in this study.

Participants in the study

Tables 2 and 3 outline the details of each participant interviewed and summary background information. The CARE International (PNG) female graduate officers were not included in Table 2 because they were recent graduates with less work experience and were not full-time employees. The identities and position of extension officers participating in the research have been concealed and pseudonyms have been used to preserve their anonymity. For confidentiality, some locations or provinces are labelled X, Y or Z (Table 2), especially for female extension officers of the Coffee Industry Corporation (CIC).

Female and Male Extension Officers

The 12 Female Extension Officers (FEOs) interviewed held various positions within the different commodity crops and have served their organisations for between five and 36 years. Their ages ranged from mid-20s to 60 or more years of age. All are currently employed as extension officers, although with different job titles. In terms of work experiences, the FEOs in the coffee and cocoa sectors have worked for longer periods and are more experienced than FEOs in the oil palm sector (Table 2). All 12 FEOs have tertiary qualifications. Most were married and some were single mothers. Only one officer was not married and without children. Most of the women were working in different provinces in PNG from where they were born. They experienced both living and working in other provinces and/or in their own home provinces with their husbands or on their own and with their children.

The 17 Male Extension Officers (MEOs) who were interviewed held various positions within the different commodity crops and had served their organisations for between three and 25 years. Their ages ranged from late 20s to mid-50s. (Table 3). All had college qualifications. These male officers came from different ethnic groups in PNG and had experienced living and working in several provinces in PNG. Several had worked in their own home provinces with their spouses and children. In the study I examined the attitudes of male colleagues towards FEOs as well as the attitudes of female colleagues towards their male colleagues.

In this chapter the discussion explores mainly the experiences of FEOs by analysing their experiences using six key categories:

- Recruitment processes;
- Constraints/challenges in the job;
- Training needs;
- Promotion prospects;
- Experiences with male colleagues; and,
- Experiences working with female farmers.

These categories provided a framework to analyse the everyday experiences of female extension officers; the constraints and challenges they have faced; opportunities for skill capacity training; and recognition of their skills through promotion.

Table 2: Female extension officers' biodata.

Name (pseudonym)	Industry & location	Age category	Education	Year joined extension	Years of service	Marital status
Mary	Coffee (X)	40-49	College	1999	18	Single mother
Betty	Coffee (Z)	30-39	College	2014	3	Married
Rosina	Coffee (Y)	40-49	College	1999	18	Single mother
Margarete	Cocoa (ENBP)	40-49	College	1990	27	Married
Angela	Cocoa (ENBP)	60-69	College	1981	36	Married
Marilyn	Cocoa (ENBP)	60-69	College	1992	25	Married
Cynthia	Oil Palm (WNBP)	30-39	College	2011	6	Married
Michelle	Oil Palm (WNBP)	30-39	College	2012	5	Married
Edna	Oil Palm (WNBP)	50-59s	College	1997	20	Married
Maureen	Oil Palm (WNBP)	20-29	College	2012	5	Single mother
Vanessa	Oil Palm (WNBP)	-	College	2009	8	Married
Tora	Oil Palm (WNBP)	30-39	College	2016	1	Single

Table 3: Male extension officers' biodata.

Name (pseudonym)	Industry	Age category	Education	Year joined extension	Years of service	Marital status
Roland	Coffee	30-39	College	2014	3	Married
Joss	Coffee	30-39	College	2014	3	Married
Matthew	Coffee	40-49	College	2014	3	Married
Kevin	Coffee	40-49	College	2014	3	Married
Tony	Coffee	30-39	College	2014	3	Married
Ralph	Coffee	40-49	College	2004	13	Married
Anthony	Coffee	40-49	College	1994	23	Married
James	Coffee	40-49	College	2014	3	Married
Samson	Oil Palm	50-59	College	1992	25	Married
Edmund	Oil Palm	50-59	College	2012	5	Married
Michael	Oil Palm	30-39	College	2004	13	Married
Richard	Oil Palm	30-39	College	2003	4	Married
Alfred	Oil Palm	40-49	College	2012	5	Married
Petrus	Oil Palm	30-39	College	2014	3	Married
David	Cocoa	50-59	College	1999	18	Married
Charles	Cocoa	30-39	College	2002	15	Married
Steve n	Cocoa	30-39	College	2005	12	Married

Recruitment of Female Extension Officers

The 12 FEOs were all recruited on merit through formal recruitment procedures. Each applied for their positions, which were advertised in PNG's two daily newspapers. They were interviewed and accepted their positions. Some of the CIC FEOs were recruited in 1999 through CIC's industry recruitment drive. This involved encouraging final year agriculture students at the University of Natural Resources and Environment (UNRE) (formerly known as Vudal University College) in ENBP to apply. Each student was asked to submit their *curriculum vitae* and copies of educational qualifications to the human resource section at CIC. Later, other FEOs were recruited because they held diplomas and certificates in agriculture from recognised agricultural institutions as well as work experience in agricultural related areas.

Constraints and challenges in their work roles

There were many everyday constraints and challenges faced by FEOs while performing their duties in the office and out in the field. The results from the interviews showed that the main constraints faced by the FEOs were lack of funding and management support to perform their duties adequately, followed by difficulties of working with male colleagues. Being female, some also experienced cultural barriers and security and safety issues (Table 4). These are explained in more detail below.

Lack of funding and management support

From the perspective of FEOs, a lack of institutional management support in terms of funding and resource allocation had often hindered their work progress in terms of their annual work plans. This was a major problem faced by the coffee FEOs working in the provinces where coffee was only a minor cash crop. In one province, support in terms of quarterly operational budget allocations was often not allocated to the provincial office to implement their extension programs. This had been an ongoing problem for several years resulting in the office lacking essential equipment such as computers, printers and facsimile machine and internet connections for ease of communication. There were no funds to pay office bills (electricity, telephone and water bills) which resulted in the disconnection of these vital services to the office. Allocation of physical resources was also a major problem affecting the operations in the Province. For example, there was no vehicle allocated to the Province which made it impossible to service the vast coffee growing areas in the province, and severely constrained staff

movements and transportation of field materials to extension field sites. This resulted in the cancellation of all planned and budgeted field programs for the coffee project sites in the province.

Table 4: Most frequently noted constraints and challenges by female extension officers.

Constraints and challenges	Percentages (n=12)
Lack of funding and management support to carry out their work	75
Difficulty working with males	58
Cultural barriers	50
Security and safety	25
Remoteness of work location	17
Bad weather	8

Similar sentiments about resource funding limitations were also expressed by another FEO. In the province she worked the provincial quarterly budget allocations were not allocated. The office was not resourced well with the necessary office equipment for effective communications, and although there was a vehicle, there were no funds for fuel, repairs or maintenance making it difficult to keep the vehicle on the road. The office was also in a state of disarray, most of the extension operations had been scaled down or suspended. Murray-Prior & Padarath (2013, p.41) identified financial costs and budgetary problems as a major ongoing problem within CIC in their evaluation of CIC extension.

The FEOs in the oil palm sector also experienced the problem of not being resourced well to carry out their duties, although not to the extent of the FEOs in coffee. There was a lack of logistical support in terms of motorbikes and vehicles for field extension. For example, when motorbikes are being serviced, there is no replacement for use. They rely on the divisional manager for transport, but when he is away from the office, his vehicle is not available. However, despite these problems the oil palm FEOs did have access to computers, printers, telephones and occasional internet access (although very slow speeds).

In the cocoa sector the female officers who managed the district operations (DRDOs) also faced funding problems to maintain their offices and

implement the extension programs in their respective districts of Kokopo and Gazelle in Rabaul, ENBP. The funding allocation was not forthcoming from the Provincial Department of Agriculture and Livestock (PDAL). The female officer in charge of projects in the Baining Local Level Government (LLG) of Gazelle district also said transport was an ongoing problem, making it hard for her to make regular visits to the project sites.

The problem of severe funding constraints has affected the delivery of extension services in all the commodity crop sectors in PNG. This is due largely to the decline over many years of the allocation of funds to extension services in PNG (Sitapai, 2012). The cutbacks in funding of extension services remains an ongoing problem. The funding by the Government for agriculture extension programs has varied greatly over the last 20 years. It is impossible to give an accurate estimate of the annual budgetary allocation for agriculture extension support because of the proliferation of public and private sector entities involved in providing agriculture extension services (Sitapai, 2011; 2012). Although, there has been an improvement in the provincial funding for agriculture extension over the past ten years under the District Services Improvement Program (DSIP) and other grants, the support for agriculture services overall has not improved compared to other sectors of the economy (Sitapai, 2012). At the 2017 agriculture summit held in Port Moresby, it was recognised that the Government was currently very short of funds. Summit participants emphasised that the Government should focus on the core functions of the state such as providing public goods, including infrastructure, regulatory frameworks, and support to farmers (Barker, 2017).

The problem of severe organisational funding constraints together with the misallocation of resources and sometimes inadequate management support are factors hindering the work of both the FEOs and MEOs in all the commodity crop sectors in the provinces and the rural districts in PNG. These are very challenging issues when they are not being addressed adequately by the organisational management. They are especially challenging for FEOs working in the major export commodity organisations which are typically dominated by men whose preferences and work needs often receive priority and attention over those of females. This is illustrated by Mary's story (Box 1). Mary stressed the lack of management's commitment to provide support for working in partnership with other organisations in service delivery has reflected poorly on her character as a female officer who had to go from office to office 'begging' for assistance.

However, women are more likely to receive less priority than their male counterparts when extension resources are allocated, and it is culturally more difficult for women to assert their authority to gain greater access to resources.

Safety or security issues (25%) are a major concern for female officers especially when working alone in the field and without easy communication with colleagues. Female officers are vulnerable to physical and sexual assaults in PNG. Security and safety issues are not often resourced well, for example, with a vehicle to enable female officers to travel long distances. A 4-wheel drive vehicle should be used to access remote sites which are accessible by road rather than expecting FEOs to walk for many hours as many FEOs have experienced in coffee, which exposes them to greater risks. Murray-Prior & Padarath, (2013, p.40) also identified safety and security as one of the constraining factors restricting the attendance of women in training, in their evaluation of CIC extension. Although none has experienced any physical assaults to date, such threats are still prevalent in society, especially in rural and remote PNG.

Box 1: Mary's story of working in the coffee sector.

Mary is a CIC officer and has been with CIC for 18 years. Mary was recruited by CIC through a recruitment drive in 1999. This was her second job with the organisation. Previously she was employed by Coconut Products Limited. She was overwhelmed and happy to work with her organisation as she believed that the job would now be a permanent position for her. She said she looked forward to what the organisation could offer her in her job and how best she would contribute to the organisation. Mary took up her first posting in Simbu Province and looked forward to taking up the challenges and excitement of working in a new environment.

When Mary initially began work, she experienced some hostility from her male colleagues (see Box 2 for more information). These problems were eventually resolved.

However, according to Mary, a greater problem for many women was when there was a lack of institutional and financial support for women when working in a male dominated organisation. She said "I see that for the resources and stuff like that, the male counterparts are considered first and later female officers. They [management] are not listening to female counterparts in whatever they are trying to say or raise. Most of the time it is the males who are at the upper end to gain advantage over female officers".

Mary continued to stress the difficulties of being a female officer in an organisation where a lack of funding and management support prevail:

Some of the constraints I faced while working [with CIC] in partnership with other organisations are things like no functioning office computer, fax machine, internet connection and telephone. In my case, most times I am not being resourced by my organisation properly. I was never given a vehicle to move around. By walking on foot for long distances I was putting my life at risk. As a woman I am prone to risks and my safety is very important. I am a one-woman operation here in [the] Province. I don't have a clerk or anyone under me at the moment and there are so many things I am loaded with. Now I am trying to offload these things. We are always talking about networking and partnership and trying to get people to assist me since I am not resourced. I keep going to the offices of DAL and CCI to seek assistance. I can't be forever going knocking on their doors. I have been doing that for the last so many years I have been working here. I feel bad about it. I am a beggar. I become another beggar in the streets of this town in [the] Province begging people to give me this and that. It is a shameful thing for my organisation. Being a female, I can't go on like this. I have to be backed up with resources. I have ended up with so many problems in the process of going through and begging people for assistance and services It is unethical and unprofessional not being fully resourced and I don't like it and I become a laughingstock as you can see by other organisations who are being fully resourced.

The bosses and the officers they are all male counterparts and for a female officer going around asking for help (looking back at the PNG way of thinking, for a lady going around begging male officers every now and then asking for help) is not good. What are they going to think of me? I am being put in an awkward position. It brings shame on the image of my organisation. I have to be resourced just like my male counterparts in other provinces of PNG who are on the same level as me. Why are they being resourced and I am being over-looked? What is the thing that I lack? I should be resourced the same way as my male counterparts. I just don't understand.

(Translated and paraphrased from Melanesian Pidgin) (Mary, February 2017).

Difficulty of working with male colleagues

Interview data revealed that being a female working in a male dominated environment can be very challenging for FEOs and can constrain their work performance. Almost 60% of FEOs indicated that they had experienced difficulties working with their male colleagues (Table 4). The difficulties and challenges initially faced by FEOs in the coffee sector appears greater than those faced by FEOs in the oil palm and cocoa sectors. This may be because the male extension officers have been dominant in the workforce in the coffee industry for a long period and coffee is a very male dominated crop among farmers in the Highlands. Hence, it was unusual for women to be employed as extension officers in the industry, and there were some negative attitudes shown towards the FEOs when they were first recruited in 1999 as shown in Mary's story in Box 1. Also, coffee FEOs when they were first recruited were single mothers and, at that time, there was a stigma attached to being a single mother in the workplace, especially in a male dominated sector such as agricultural extension.

For the oil palm and cocoa FEOs, their situation was quite different although they also experienced difficulties initially (see Michelle's story in Box 2). Some oil palm FEOs, when recruited, had husbands working in the organisation which made the work environment more receptive to them, as shown by Cynthia in Box 2. For several FEOs, whilst there were some initial difficulties working with male colleagues, they gradually developed good relationships with them and male farmers.

The attitudes of male colleagues, whether they are happy or not to work with female colleagues, can be challenging for FEOs and cause discontent and unrest resulting in poor work performance. Men have built a masculine workplace culture that favours men and excludes women to an extent. Mate (2013) stressed that it is still not clear as to how women make sense of this workplace culture and the way in which this constrains their acceptability and performance. As highlighted by Mary's story in Box 1, it is difficult and not always culturally accepted for a female to seek help from male officers. Given the way females are raised in PNG, and even if one is educated, it can still be socially unacceptable for a woman to assert her authority in a male dominated workforce. Culturally, traditional norms mean that men are perceived to be superior to women (Cahn & Liu, 2008).

Some of the FEOs interviewed referred to the unethical conduct of some male officers such as insubordination in performance of their duties when

instructed by females as their supervisor. This is another major challenge for those FEOs in supervisory positions. Some of these difficulties are highlighted in the four case studies presented in Box 2.

It was interesting to find that while all male officers claimed to be happy working with female colleagues, around one-third of them in cocoa and coffee were not happy working with other MEOs. This was less of a problem in oil palm. These negative attitudes amongst male colleagues towards other male colleagues occurred for various reasons such as no cooperation amongst them, differences in educational levels and years of work experiences. It is possible the results reflect the greater competition amongst men for status in their organisation.

It was also interesting to note that while all male officers claimed to be happy working with female officers, 58% of FEOs said they had difficulties working with male colleagues (Table 4). The negative attitudes of male colleagues raised in interviews by FEOs occurred for various reasons.

Box 2: Female extension officers' stories and experiences regarding male attitudes.

Rosina's Story

Rosina was recruited as a FEO through the recruitment drive employed by her organisation in 1999. This was her first job with CIC. She has faced many challenges over her 18-year career with the organisation. She is a single mother of two children. Rosina said:

I need to say this out. As a female officer I faced a lot of challenges with my male counterparts. I am currently managing this office and I have male officers working with me. It is very challenging especially with the PNG mentality where we are saying men are superior to women. It is a challenge for me with many things I face, like sometimes when instructions are given to men, they are not followed. Also, as a female officer there is also the issue about male counterparts' wives where it brings personal problems. Management should investigate this. Although, it is challenging I want the management to investigate these matters (Rosina, March 2017).

Mary's Story

Mary recalled her attitudes and impressions of the reactions to her by her male colleagues when she first started working as a FEO. She said coffee was a male dominated crop and since women were not 'traditionally' part of the workforce or employed as field extension officers, for her to be one of the first females recruited to work amongst the male colleagues was difficult and considered not to be 'right'. In the minds of her male colleagues, it was not considered appropriate that a female work alongside them. As such she was placed in an awkward position. Her male colleagues doubted her ability and questioned how a female officer would impart coffee information to the large population of male coffee farmers and how these farmers would react to her. Mary also had similar thoughts in her mind, but she kept them to herself. However, as she settled down in her new position, gradually all the negative thoughts held of her by her male colleagues faded as she proved them wrong in the sense that she performed her duties just like them. From there on she gradually gained the respect and trust of her male colleagues and has since worked well with them (Mary, February 2017).

Cynthia's Story

Cynthia was recruited in 2011 as a field assistant and was posted to a specific area to work alongside her husband who was also employed by the organisation two years before her in 2009. This was her first job with the organisation and she was very excited and happy in her new role. She said she had no problems working with her male colleagues. They were happy to have her on board and she had a good working relationship with them. The main initial challenge she faced was that the organisation was male

dominated, so she had to consider herself as being a male officer too and follow their rules. She has been with the organisation for six years and Cynthia said she has had no problems with the oil palm farmers as the farmers respect her as an officer. The farmers greet and talk to her politely when she rides her motorbike to visit their blocks (Cynthia, February 2017).

Michelle's Story

Michelle was recruited for the position of field assistant in 2012 and was posted to a relatively remote site. When she first joined the organisation, she was nervous. This was her first job with the organisation. She has been with the organisation for five years. She is a single mother of two children. The initial attitudes of her male colleagues towards her were not good. She did not have a good working relationship with them. Even her immediate boss was not supportive and helpful towards her. Despite the negative attitudes of some of her male colleagues, she persevered to carry out her duties. Some male and female farmers supported and encouraged her and this motivated her to perform well in her work.

Michelle has faced some major constraints and challenges in her job. The bad working relationship she had with her boss and male colleagues affected her performance and completing her work programs well. Male officers would talk behind her back and make false accusations against her. On one occasion they accused her of being absent from work for several weeks which resulted in her having her pay docked for three consecutive fortnights. Michelle said she actually had a few weeks off as sick leave because her child was very sick.

She also faced the challenge of working with illiterate farmers. Some male farmers were very aggressive to her and demanded that their payslips from the sale of their oil palm fruit, be produced in a timely manner to them by the officers, including her. Payslips are produced at the company head office and it is a management issue that she has no control over. Both male and female officers are often harassed if the payslips are not produced on time to the concerned farmers. However, as a female officer, this aggression can be very intimidating (Michelle, February 2017).

From the perspective of FEOs, some MEOs considered 'extension' to be a job only for men and for cultural reasons some men do not want to accept being on an equal footing with women working as extension officers and/or receive instructions from female officers that hold supervision or managerial positions. Also, differences in educational levels where some FEOs have higher educational qualifications than their male officers were seen by FEOs as the explanation for why some men held negative attitudes

to working with female colleagues. For example, many of the FEOs are recent graduates and have diplomas, while most of the middle-aged MEOs had their education in the pre-or early post-independence days and only had training certificates. Finally, as some FEOs pointed out, misunderstandings can sometimes arise resulting in conflicts between the wife of a male colleague and a female extension officer, as some wives do not trust their husbands nor understand the working relationship between male and female work colleagues. This can cause workplace tensions for women.

Generally, it is perhaps 'normal' for men to say they have a good working relationship with female colleagues in workplace. However, their attitudes towards female colleagues speak otherwise; this is highlighted in the interviews with FEOs. As stated previously, it was an interesting contrast for men to think that they had no problem working with women while women thought there was a problem working with men. Women were often forced to conform with men's views when working in a male dominated environment. Also, male officers tended to overlook their responsibility to ensure their wives understood their job and working relationship with FEOs in the workplace.

Cultural Barriers

The most common form of cultural barrier FEOs identified was communicating with male farmers. Communicating information, especially to male smallholder farmers by a female officer, can be very challenging in PNG. Patriarchal attitudes are widespread and entrenched (Manjor, 1999; Wardlow, 2006; Macintyre, 2008), and as such, men are often reluctant to listen to woman officers, or they dismiss the information given to them by women. This raises the question of how do female agriculture extension officers deal with and overcome the cultural barriers affecting their performance in the provision of delivering extension services to both male and female farmers, but more specifically to male farmers? One female officer adopted the approach of spending more time with female farmers. As Mary said:

There is the challenge of working on your own without subordinate staff while trying to break the cultural barrier of speaking to male coffee farmers. I had to use women farmers to get to the male farmers and such a proactive approach worked well for me. It was anticipated that whatever information I talked about or taught women farmers, they would share with their husbands and their husbands would listen to them (Mary, February, 2017).

Many female officers also found that cultural barriers slowly declined over time as farmers continued to work more closely with them. One FEO explained that she experienced strong cultural barriers as an FEO especially when she worked in remote locations in the Highlands. She found being a female was a major problem in communicating coffee knowledge especially to male coffee farmers. But, as she added, the tide is slowly changing as male farmers are beginning to have trust in female officers who would attend to them quickly when male officers are not there at the office (Rosina's story, March 2017).

The experiences of Mary and Rosina were similar to that experienced by other FEOs interviewed. These types of problems have been faced by women in the workplace in PNG for several decades. As Kambuou noted (1976, p.133):

Women (in PNG) in any field of work face all sorts of problems, both big and small. Fieldwork is pretty hard and often very difficult for a woman to handle. Here women are dealing with men from the village, especially in research work where all the labourers employed are male. It is tough at times and very difficult for a woman field worker to tell or give orders to middle-aged men who were never ordered by women before, especially when our country has been male dominated all along. Women doing extension work are likely to face the situation where the village men refuse to listen to them because they are women. There is no evidence reported of this problem. However, it is a likely problem in the future.

It is interesting to note that the situation has not changed greatly since the above quote from the 1970s. Looking back at female field workers' experiences in the 1970s to the present time, there is still a considerable way to go for FEOs to be accepted as equals by their male colleagues and by male farmers.

Women have much to contribute to the building of society, yet the education and advancement of women have caused insecurity among some men, who believe that educated women will compete with them for their jobs (Nagari, 1985). Sai (2008) found that educated men in PNG, while respecting women's ambitions to be educated, still prefer women to occupy supportive roles and not to be in equal or senior positions in an organisation. Again, this was attributed to their traditional/cultural beliefs concerning the 'proper' roles of women.

As expressed in this quote from an interview from Sai (2008, p.112):

I interviewed forty men [in PNG] who occupy very senior key positions in the public and private sector on how they see the role of women in the workforce and most have said they would rather see women in supportive roles and not in leadership roles. While they don't mind women participating, they are not prepared to accept them as equals or bosses. Much of this perspective, I believe has to do with traditional beliefs and traditions which most men based on. They prefer women to play supportive roles (Sai, in interview with Aiva Tamata, 2008).

The quote reflects the current situation in PNG, and for many FEOs interviewed in this story. The cultural barriers faced by FEOs stem from the general inferior position of women to men in PNG. This can be cross-referenced to Rosina's story (Box 2) about insubordination by male colleagues when a female is in a senior position and is the boss.

Experiences and involvement with female farmers

The cultural barriers faced by FEOs in PNG also extend to female farmers. There is a long tradition of agricultural extension/training in PNG focussing largely on men to their benefit. Men typically control cash crop income. Female farmers have been largely excluded from agricultural extension training. This is because of their lower levels of literacy and education (training commonly involves reading and writing), their family responsibilities and heavy daily workloads in food gardening which take up much of their time (Mikhailovich *et al.*, 2016). Yet, the three main export commodity crops in PNG are said to be household crops indicating that women, as part of the household, are also involved in production and harvesting of these crops. Women in PNG contribute much time and labour to household cash crop production (see Koczberski *et al.*, 2001; Inu, 2015; Curry *et al.*, 2017). Therefore, it is critical that FEOs are employed to work closely with female farmers.

Similar cultural barriers are also experienced in other developing countries where 'traditional' norms about women are dominant. For example, according to a FAO report (2017) in Ghana, redressing the issues of gender differences in extension services to farmers remains a major problem. Women farmers have been disadvantaged by a lack of female agricultural graduates which has resulted in less female extension workers in many districts, especially in areas where cultural norms meant it was

difficult for a female farmer to talk to a male extension worker. While in Sri Lanka more female farmers brought their crops to female ‘plant doctors’ raising the possibility that female farmers were more likely to choose female ‘plant doctors’ to work more closely with them than male plant doctors.

All the FEOs interviewed indicated that they were comfortable working with female farmers. However, due to cultural barriers in communication with male farmers, and male officers taking the front stage, often FEOs usually had to take the back seat. It is evident that female officers have shifted focus to drive changes for women through proactive training to reach female farmers as well. For example, some coffee FEOs have used their social networks and worked in partnership with women’s groups to teach women about coffee with the aim of changing the mindset of the female group members to shift their focus not only to coffee but also to increase their participation in cash crop production more generally (Box 3).

The stories in Box 3 show that FEOs were comfortable working with female farmers. Through training programs FEOs could impart new knowledge to female farmers knowing that the women would feel obliged to share the information they had learnt with their husbands or use the knowledge themselves to initiate change in household units. This is especially the case when a woman is educated or trained – it is more likely to improve her children’s health and education prospects (Quisumbing & Pandolfelli, 2010).

Box 3: FEO’s experiences of working with female farmers.

Mary

Mary said while performing in her capacity as an FEO in coffee she has seen and experienced the involvement of female farmers in coffee production starting from the nursery all the way through to marketing. She said coffee is a household crop and women are very much involved. She also felt more comfortable working with female coffee farmers and Mary emphasised that women are usually the first point of contact in the field and welcome her. She believes that there should be a shift in focus to drive positive changes in the coffee industry. For example, women should be empowered through incentive programs and there should be tailored training to female farmers to drive positive change by changing the mindset of individuals, especially the husband in the family unit (Mary, February 2017).

Rosina

Rosina highlighted that women play important roles in coffee production. As she explained: women play the role of labourer from nursery to picking and processing. Although men are the head of the household, women still play major roles in assisting men in coffee production. Generally speaking, female coffee farmers don't speak up and talk freely to male officers. Rosina said that female farmers would rather talk to her and are more open and comfortable with her. She believes women can do better if there were more awareness and training targeted at female farmers to take up opportunities along the coffee value chain. For example, she referred to an all-women's coffee group called 'Gumase Women's Cooperative' established in the remote Nankina area consisting of 300 members and the group is progressing very well. Rosina explained that women are/or can be good managers, like herself in the position she holds. She ended the interview by saying that it would be good for CIC to promote the work of women in coffee or gender issues in the organisation at a higher level (Rosina, March 2017).

Cynthia

Cynthia works with many female farmers who are heavily involved in oil palm production. The biggest problem faced by women is the distribution of the oil palm income by husbands. Female farmers who are members of the Mama Loose Fruit scheme were very comfortable working with Cynthia. Women farmers talked freely and openly to her about many issues, even sharing their personal problems too. During training, in the presence of male participants the female farmers will not ask questions, however, they will approach Cynthia after training and ask her questions (Cynthia, February 2017).

Training received

My results show all FEOs received full in-house training related to their work. For example, coffee FEOs all undertook training in different pruning techniques, fertilizer application and coffee rehabilitation. Similarly, FEOs in oil palm received training in management practices related to agronomy, cover crop establishment, pruning, nutrient management and computer software training. Half of the FEOs underwent collaborative partnership training. Some FEOs sponsored their own training (25%). Some training was conducted in partnership with other sector organisations, international NGOs and as part of international donor-funded programs. For example, in coffee training on 'How to approach farmers in the field' was done as part of a collaborative partnership between CARE International (PNG) and CIC. Also, speciality market certification training was carried out by Fairtrade

(New Zealand and Australia) in association with CIC. In oil palm, training on 'Roundtable on Sustainable Palm Oil (RSPO)' and sustainable farming practices was conducted by different international RSPO consultants attached to New Britain Palm Oil Limited (NBPOL) and Hargy Oil Palm Limited. The training was provided to the field extension officers of which four FEOs were from OPIC and one from NBPOL.

There was no institutional support from any of the extension organisations in coffee, cocoa and oil palm to facilitate opportunities for staff to have access for further training to upgrade their academic qualifications through their respective organisation's capacity building programs. This applied to both FEOs and MEOs. Nevertheless, more FEOs completed external training. Of the 12 female officers interviewed who did not receive training support from their own organisation, three self-sponsored themselves and undertook further studies in academic institutions in PNG. The three FEOs considered the training to be very important for them in the long-term and therefore took the opportunity to sponsor themselves to do diploma programs through flexible learning at college level. One FEO completed her studies while the other two FEOs were forced to withdraw from studies because of financial problems.

Of the FEOs interviewed, one-third (33%) undertook short overseas training courses at some point in their lives (Table 5). The training was made possible through partnerships with other organisations and not through their own organisations (Box 4). Although both female and some male officers were not considered for capacity development training by their organisations, several female officers were given the opportunity to attend short overseas training based on securing their own external funding. Of the 17 male officers I interviewed, only one had attended an overseas short training course compared with four females (33%) of the 12 that I interviewed (see Box 4). It appears that female officers may now have better opportunities for capacity building due to gender inclusion programs becoming a priority area in many donor agencies and NGOs. This is a recent positive step for capacity building amongst FEOs.

Table 5: Training received by female extension officers.

Human resources capacity development	Percentage (n=12)
In-house training	100
Collaborative partnership training	50
Short training overseas	33
Self-sponsored training	25

There was no difference between the organisations in terms of capacity building. Male officers did not appear to receive priority over women in in-house training. Most of the training provided was in-house for both female and male officers. Some FEOs believed external training should be encouraged and promoted in organisations because it would expose staff to broader views and experiences and thus build confidence and fill knowledge gaps of staff.

Box 4: Stories from Female extension officers on professional development.

Mary

Mary said that for her professional career development she only attended in-house job-related training such as extension programs of coffee pruning, rehabilitation, nursery and pest and disease management practices provided by her organisation. There were no funding opportunities made available by the organisation for external training for field extension staff to enable them to keep abreast of new knowledge and skills especially with new developments such as emerging markets and their requirements in the changing global coffee market. Mary had one opportunity to attend training in Jamaica in 2012 sponsored solely by an NGO. The one-week training course was mainly about the participation of women in the coffee value chain (Mary, February 2017).

Betty

Betty said she only attended in-house job-related training provided by her organisation. There were no opportunities made available by the organisation for external training to gain new knowledge and skills. In 2015, she attended a one-week in-house training jointly conducted by CIC/CARE International in PNG. The in-house training was about how to deal with different farmers in the field (Betty, March 2017).

Rosina

Rosina only attended in-house job-related training such as extension programs on coffee pruning, rehabilitation, nursery, pest and disease management practices provided by her organisation. There were no opportunities made available by her organisation for external training. Rosina self-sponsored herself to study at Divine Word University in Madang Province under the flexible learning program to do a management course but could not complete the course due to financial constraints. She also funded her attendance at other training provided by external organisations such as World Vision who provided training on record and book-keeping which she believed would enhance her skill capacity and fill knowledge gaps (Rosina, March 2017).

Edna

Edna recalled she only attended in-house job-related training provided by her organisation. There was no organisational support for human capacity building in her organisation, especially for external training for staff. They used to have in-house job-related training on farm management and pest control, provided by the Oil Palm Research Association (OPRA). She had a few short external overseas trips sponsored by NGOs, such as the Asia-Pacific Association of Agricultural Research Institutions and Women in Agriculture Development Foundation (WiADF). In March 2012 she travelled to India and in November the same year she travelled to Ethiopia. In 2014 she travelled to Melbourne to participate in the Australian Women in Agriculture Conference (Edna, February 2017).

Marilyn

Marilyn said for professional career development mostly in-house training was provided to staff. The training was provided by partner organisations such as CCI, NARI, University of Natural Resources and Environment (UNRE), IATP and Provincial Health Division. Marilyn believed priority was given to friends and families of those in authority over some staff. After declining her requests on numerous occasions for further studies, she facilitated her own studies and won a scholarship under the New Zealand Overseas Aid Development program and graduated with a post-graduate diploma certificate. She was part of the ENBP WiADF and took part in the Australian Women in Agriculture Conference in 2014. Through the provincial WiADF she also attended training in Italy. The short training, she gained overseas was through networking and partnership with other organisations. (Marilyn, February 2017).

Cynthia

Cynthia had only attended in-house job-related training provided by OPRA (same as Edna with in-house job-related training). There was no organisational support for human capacity building in the organisation especially for external training for staff. She had plans to do further studies in 2018 but it would be self-funded (Cynthia, February 2017).

Michelle

Michelle stressed that there was no qualified human resource officer at her organisation's head office since 2000 who could facilitate training for staff. There were also no external training opportunities for staff (Michelle, February 2017).

Promotion prospects

Most of the FEOs interviewed have been promoted (83%). However, some FEOs (42%) complained that although they were promoted, they have seen many undeserving male staff promoted. Some male promotions were considered to be unfair because although the FEOs were recruited with the same qualifications as their male colleagues and were performing the same jobs, their male colleagues were promoted more quickly than women who often took more than 10-15 years to be promoted compared with 3-5 years for men. A couple of FEOs interviewed believed that several staff promotions were due to nepotism because the promotions were given by people in authority favouring certain male or female officers because of special relationships such as relatives or friends. Some FEOs shared their experiences and stories about promotion as outlined in Box 5.

Given the importance of women in the coffee industry, however, there are still very few women in extension positions, on the CIC board and in management according to Murray-Prior & Padarath (2013, p.40). In the same evaluation they suggested that since women have subordinate status in many communities, they should be represented more fairly in consultative activities such as taking part in surveys and training activities.

Box 5: Stories and experiences of promotion

Mary

Mary worked as a female mobile extension officer for 15 years and in 2014 was promoted to a senior position. She was the first female to be promoted to that position. She acknowledged the promotion, but said it was well overdue. She felt it was unfair she had to wait so long before being promoted. She was performing the same duties, getting the same pay, and graduated from the same college as her male colleagues who were promoted 3-5 years earlier. She asked why was it that they got promoted quickly while it took so long for her to be considered for promotion (Mary, February 2017).

Betty

Betty said she has been with the organisation for 3 years now and has not yet been promoted. She said she is still on job probation. Betty thought her probation period was far too long without any valid reasons. She believed it to be unfair and to be a case of gender discrimination (Betty, March 2017).

Rosina

Rosina's story is similar to Mary's. They were both recruited in 1999 and promoted in 2014. Mary was promoted first, a couple of months before Rosina. Rosina also worked as a female mobile extension officer for 15 years and recently was promoted to a senior position in 2014. She was the second female to be promoted to that position. She shared the same sentiments as Mary. She acknowledged the promotion. However, she said the promotion was well overdue as she was performing the same duties as her male colleagues, many of whom had been promoted before her (Rosina, March 2018).

Edna

Edna received several promotions. She started as a field assistant in 1997 and then was promoted to extension officer and senior extension officer. Eventually, she was promoted to the main office in 2008 and took up the position of coordinator for the Mama Lus Frut (MLF) scheme. She has held this position since then. Edna was initially recruited to work on the MLF scheme and started as a field assistant to finally reaching the position of MLF coordinator (Edna, February 2017).

Michelle

Michelle was promoted in 2015 to extension officer position. She has been with the organisation for five years. She is still based in one of the most remote rural area of Hoskins (Michelle, February 2017).

Cynthia

Cynthia has had several promotions since starting as a field assistant. After three years she was promoted to extension officer. In 2016 she was promoted into a new position as the assistant coordinator for the MLF scheme and will be on a promotional transfer to Head Office at Nahavio in Kimbe in 2017 (Cynthia, February 2017).

Marilyn

From Marilyn's experiences, she believed nepotism is widely practised and prevalent in her organisation. She said after years of working with the ENBP DPI, it was not easy to be promoted especially as an outsider [non-Tolai²]. It takes a very long time to get promoted and you may not be promoted at all (Marilyn, February, 2017).

² Tolai - Are the indigenous people of Rabaul, East New Britain Province in Papua New Guinea.

From the interviews with the FEOs, some believed that women with the same qualifications and experiences as men were passed over for promotion. Even when women have the same experience, tenure and work responsibilities as men, the interviews indicated that they are less likely to be promoted. It was noted that the promotion structures are not the same in the three organisations and the length of time to be promoted also differs. This is because different organisations have their own policies, missions and visions that govern their operations. For example, in the oil palm sector the FEOs are getting promoted within 2-3 years (see Cynthia, Edna and Michelle in Box 5) while in the coffee and cocoa sectors it takes over 10-15 years to be promoted (Box 5). Perhaps the reasons behind the faster promotions for FEOs in oil palm than for cocoa and coffee are because:

- the industry provides an attractive environment by providing accommodation and motorbikes encouraging women to work hard and stay with the organisation;
- the industry has a performance-based appraisal, assessing officers according to work outputs; and,
- it is a risky job riding around on motorbikes on their own going into the field.

Considering the above reasons, it could perhaps also be that in the oil palm industry there is better support and governance and that the senior management in New Britain Palm Oil Limited (NBPOL) and OPIC are keen to see women rewarded for their work in the industry.

In PNG, one of the Government's aims is to provide equal job opportunities for men and women. However, the reality is that most of the executive positions in the public service and private sector are occupied by men (Dobunaba, 1995 & White, 2007 cited in Potek, 2009, pp.110). Similar research findings in the education sector in PNG suggest that male dominance in the education structures discourage female teachers from aspiring for more education and promotion (Yeoman, 1985; Nongkas, 2007; Sai, 2008, Department of Education, 2009; Country Partnership Strategy: Papua New Guinea, 2016). The underlying factors causing gender inequities in employment or promotion stem, in part, from the deeply embedded cultural beliefs that women are secondary to men. These attitudes still exist in the minds of many senior male decision-makers and males in positions of authority in PNG (Yeoman, 1985).

There are widely accepted traditional norms that continue to play an important part in PNG societies. Even those who have received western education or have lived for many years in urban areas, cannot escape from what is considered to be customary ways. That is simply because something that is considered to be of traditional importance is preserved and is automatically perceived to be significant (Lawson, 1997). Although many PNG men are aware of the changing role of women, they adhere to traditional norms and values which impede the advancement of women as equal partners with them. "It seems though, while many men themselves were willing to adapt to many non-traditional roles, they, however, want the assurance of knowing that, in a fast-changing world, their women will remain confined to customary roles of caring, producing offspring, producing food and being in the kitchen" (Nagari, 1985, p.119). This confirms the United Nations Country Team (2001) report on PNG stating that raising awareness and sensitivity of men to gender issues cannot be over-emphasised because men continue to hold most of the positions of power in PNG. The report argued that until these men are convinced that empowering women does not threaten them, it will be difficult for women alone to achieve equality. Women and men in PNG with the same educational qualifications reach different levels in occupational status. However, men usually have easier access to managerial, technical or corporate entrepreneurship positions (Jayaweera, 1997).

From my own personal experience, another factor that hinders women's advancement professionally relates to the women themselves. Many hold 'mindsets' or stereotypical attitudes about their gendered roles that stand in their way of advancement. For example, in coffee production, many female farmers still accept that coffee is a male crop which can deter them from taking an active role in decision-making. This confirms Potek's (2009, p.111) claim that, even when women in PNG have the advantages of education, training and visibility they still hold onto traditional views regarding their roles and position in PNG society.

Conclusion

The problems that FEOs expressed are not just confined to PNG. Other developing countries face similar issues of gender inequalities. For example, in some parts of Uganda women are regarded as second/third class citizens (Kagoda, 2004 cited in Potek, 2009, p.111). Even in Australia, where there is more workplace equality for women, gender bias continues in the workplace. In a recent study conducted by the Australian Institute of

Management (AIM) (2014), on workplace gender equality, it was reported that gender stereotypes and unconscious biases continue to influence company decisions regarding recruitments, promotions and staff remuneration (AIM, 2014). This may arise because of different views about the expected roles of men and women in the workplace. For example, women are not only perceived to be more communal than men, but they are *expected* to be more communal because they are said to have more communal traits such as being caring, communicative and encouraging. In contrast, males in the workplace are considered to be more ambitious, assertive, decisive and self-reliant (Prentice & Carranza, 2002; Prentice & Carranza, 2004). Women can miss out on opportunities for promotion, training and development and leadership roles due to these stereotypes. Such bias can often escalate for women who are pregnant, casual employees or have just returned from maternity leave (AIM, 2014).

CHAPTER 4

Conclusions and Recommendations

For the advancement of women and the export crop industries, it is paramount that women's roles in export cropping be recognised and their contributions to agricultural development acknowledged and supported through extension. Without this recognition and extension support, smallholder production at the household level and income-earning potential will remain limited, and women will continue to benefit less than men from commodity crop production.

Research has shown that when women have the capital and opportunity, they make significant contributions to development outcomes ranging from increased agricultural productivity to poverty reduction (Anjala, 2012). However, even within the field of agricultural research and development, most scientists and extension agents are male, and extension delivery has been largely male focused. It has long been argued that if agricultural research, development and extension paid more attention to gender issues there would be more successes (Meinzen-Dick *et al.*, 2010).

This study has helped to fill the gap in our knowledge regarding the gender bias in the extension system in PNG and the role and impact of female extension officers in the main commodity export crop sectors in PNG. There has been some work in oil palm (Koczberski, *et al.*, 2001; Koczberski, 2007) which revealed very large gains for female smallholders in income and status when women's needs were addressed in commodity production and when female extension officers were engaged to work directly with women. However, generally there has been little detailed information about women's role in other sectors such as coffee and cocoa.

The experiences of female extension officers outlined in this report highlight the different struggles they have encountered in the male dominated culture instilled in many extension organisations in PNG. The stories told by the participants in this report were based on their own life experiences and reflections on their own interactions and performance at work. By exploring their stories, this report has provided insights into the

different circumstances they have faced in their professional career development and how they are constrained by their gender. The report also shows how these FEOs, of different age groups and marital status, can continue to work despite all the negativities they face. Despite being faced with major constraints and challenges, female extension officers in PNG continue to serve with loyalty and distinction in their different capacities. This is reflected in the many years that FEOs have typically served in the positions they hold in their respective organisations.

In all, I have used six key categories in this report to analyse the experiences of FEOs mainly in the areas of: recruitment; the everyday constraints/challenges they face in their jobs; training needs; promotion prospects; their experiences working with male colleagues; and their experiences working with female farmers. These experiences of FEOs have helped formulate the following recommendations.

Recommendations to improve the status of female extension officers in the commodity sectors

Short-term strategies

Overall, the three extension organisations should increase the number of female extension officers (FEOs) employed in women extension initiatives to work more directly with women farmers. For example, the Women in Coffee Development (WiCD) program in Coffee Industry Corporation Limited (CIC) is currently severely under-staffed. In the Oil Palm Industry Corporation (OPIC), the Mama Loose Fruit scheme needs more FEOs because the number of women joining the scheme continues to grow. Currently there are no FEOs in the Cocoa and Coconut Institute. This is an unacceptable situation and places female cocoa growers in a very disadvantaged position given the presence of Cocoa Pod Borer in one of PNG's most important cocoa growing provinces. Thus, in all three extension organisations, and particularly in cocoa, there is need for FEOs to be recruited to look after the interests of female smallholder farmers.

The extension organisations should promote and strengthen female extension programs by improving the status of FEOs at the institutional level and by expanding smallholder women's empowerment initiatives. In doing so, the FEOs should work more closely with groups of female farmers and seek

funding support to scale-up such programs for female farmers. This will achieve two outcomes as a short-term strategy:

- i) Greater extension effectiveness. Extension is likely to be much more effective when FEOs work directly with smallholder female farmers; and,
- ii) Empowerment of female farmers. Smallholder female farmers are generally marginalised in cash crop production. However, by improving their knowledge and skills in cash cropping, their economic and social status is likely to be elevated with a corresponding outcome being economic empowerment.

A successful strategy implemented to increase the number of FEOs in the export commodity crops sector has been the CARE graduate program. This has been a very good model for increasing female participation in extension in the private and public sectors.

The CARE graduate program was about creating an enabling environment for gender inclusion and promoting and increasing gender equality to support stakeholders in the coffee industry. The program assisted companies to improve their policies and practices so they became more gender equitable and inclusive. The program evaluated in this study showed that it was successful. The graduate program motivates and complements the theoretical skills of the young inexperienced college graduates by giving them exposure to real workplace environments. This experience enhances the opportunities for employment and career advancement for young female graduates. Furthermore, such programs teach graduates work ethics and instil discipline and other skills that hopefully will assist them to become future leaders in their respective industries and role models for other women.

Alongside the graduate program, most of CARE's training programs were gender inclusive. As such CARE conducted many gender inclusive training sessions with extension organisations such as CIC and private sector exporting companies with which they had partnered. In doing so, these gender inclusive training programs have assisted the staff of these organisations, as well as coffee farmers to understand and appreciate the different gendered roles of men and women, and how cultural and social values in PNG can serve to disadvantage women and girls.

Training

Capacity building of human resources is very important for productivity, performance and the public image of organisations. Thus, priority should be given to upgrading staff qualifications through the human resource division of the organisations. This is clearly lacking in many extension organisations in PNG.

The capacity building of human resources in any organisation is very important. For example, regarding training, it facilitates employees' exposure to new knowledge, openness to creativity, as well as innovative ideas (Beatty & Schneier, 1997; Brockbank, 1999; Jaw & Liu, 2003). Firms may also provide their employees with broad training programs to develop new skills to perform their work (Mumford, 2000; Chen & Huang, 2009). Training also motivates staff to perform better and is generally reflected in the overall improvement in productivity and performance of staff (McNamara, 2008). The general benefits of employee training and development, as outlined by McNamara (2008) include:

- increased morale and job satisfaction among employees;
- increased motivation among employees;
- reduction in employee turnover;
- improved organisational image;
- increased capacity of staff to adopt new knowledge, skills and technological innovations;
- increased efficiencies in strategic planning and processes; and,
- improved risk management (for example, training about sexual harassment).

There was no difference between the different extension organisations in terms of capacity building of their officers. Both the FEOs and male extension officers (MEOs) participated equally in in-house job-related training and collaborative partnership training. There was no priority of men over women in these trainings. Indeed, the study revealed that one-third of FEOs undertook short overseas training courses at some point in their lives. These trainings were made possible through women's gender networking and partnership programs with other organisations other than their own employer organisations. It appears that the FEOs have more opportunities than MEOs to participate in short overseas training courses because gender inclusive training programs have become a priority in the overseas development programmes delivered by developed countries. This is a positive step for capacity building amongst FEOs.

However, the study found that, there is little or no support from any of the extension organisations in coffee, cocoa and oil palm to facilitate opportunities for their staff to access further training to upgrade academic qualifications. FEOs (and MEOs) seeking to further their own studies must be self-sponsored.

Promotion

Flaherty & Gutuma (2003:49) claimed that women in PNG have entered the workplace where the gendered barriers determined by cultural norms, are disappearing. Although greatly under-represented, women are now in the formal sector as teachers, agriculturalists, doctors, lawyers, engineers and parliamentarians. However, despite this, it is argued that most of the women are unfairly treated and unrepresented in senior decision-making roles (Flaherty, 1998; Giris & Rynkiewich, 2005; Nongkas, 2007). Many of the FEOs, as outlined in the previous chapter, expressed similar sentiments. Also, the typical reasons why some women in PNG do not attain or are not considered for promotions or senior positions are because of family commitments and family problems (such as being single mothers or have husbands opposed to their work, or domestic violence). These issues make it difficult for some women to devote their time, energy and creativity to the workplace that would make them eligible for promotion (Avalos, 1995). Although female leadership is gaining credibility, both men and women continue to expect the leadership role to be reserved for men (Stivers, 1993).

The promotional structures were not the same in the three extension organisations and the length of time taken to be promoted also differed amongst the organisations. This is because each organisation has developed its own policies and procedures for promotion. The report found that in the oil palm sector, FEOs were promoted within 2-3 years of starting their careers while in the coffee and cocoa sectors promotion took much longer at between 10-15 years. Within each organisation, promotion of FEOs took much longer than for MEOs, reflecting a bias in favour of men in promotion procedures. Some FEOs believed that despite women having the same qualifications, job responsibilities and experiences as men, they were less likely to be promoted or were not encouraged to apply for promotion. FEOs considered this to be very unfair.

Staff career paths within the extension section of the coffee industry are restricted, and this means that opportunities for promotion are also limited. It is recommended that the coffee industry through its human resources section must revisit its policies and develop staff career paths within the organisation. There should be stringent policies about promotion for its extension staff which should be based on merit and performance without gender bias. Promotion should be given when it is due and earned without delay.

Furthermore, it is recommended that in-house training for senior management be put in place to make them more aware of the gender issues surrounding promotion. This should be done by an external organisation, or senior management should attend job related training to refresh themselves about managing human resources in the organisation.

Code of ethics

The stories and experiences shared by the FEOs clearly showed that they face many challenges in the workplace. This is especially so for women in supervisory positions. They had many difficulties managing male staff because of the cultural bias and norms that assert men have more authority and status over women. As highlighted in Chapter 3, it is often very challenging and difficult for female extension officers to perform effectively in male dominated work environments. The attitudes of men to their female colleagues can cause discontent and unrest in the workplace which can result in poor work performance. The generally male dominated culture of PNG also permeates the workplace which can marginalise women and certainly makes it much more difficult for them to perform their extension roles. Furthermore, it is also not culturally acceptable for a woman to seek assistance from male colleagues or for female officers to assert their authority over their male colleagues, nor give advice to male farmers.

The culture of male dominance in the workforce has a great impact on the performance of FEOs. For example, in the coffee industry men have dominated senior positions since the start of the industry, and because coffee is considered to be a man's crop among the farming communities, many farmers saw the recruitment of FEOs in a negative light. However, when there is good senior leadership promoting the role of FEOs (e.g., OPIC), FEOs can perform effectively and be very well accepted by the community. So, there is hope for the extension organisations if they provide genuine support for their FEOs.

The attitudinal biases of staff can sometime make relationships between FEOs and MEOs difficult. It is therefore recommended that a code of ethics be introduced in the workplace and always be upheld by employees. As part of the code of ethics, it is appropriate for new staff to undergo in-house induction training to ensure they are aware of the workplace gender biases and the problems that can arise between female and male staff, especially because of jealousies/suspensions that their respective spouses might hold. Staff induction training should show staff how to address these issues.

Security issues

The way in which extension services are delivered can constrain women farmers from receiving information and training about new innovations. The common suggestion of having more female extension staff is not necessarily a solution to improve extension if women extension officers are prevented from travelling freely or are unsafe due to cultural constraints and security risks. The risk of travelling to remote areas is a major challenge to successfully implementing effective extension activities for female farmers. It is a major problem currently faced by extension organisations in many developing countries (Meinzen-Dick *et al.*, 2010).

The issue of security in the field, especially in the coffee sector, is a very serious problem especially for FEOs. Extension organisations need to take security issues more seriously and plan and coordinate field programs to reduce risk. It is also recommended that in remote areas, extension teams should always travel in pairs to conduct field patrols. Furthermore, all provincial offices should have access to vehicles for staff, especially for FEOs, to reach distant remote sites by vehicle rather than walking on foot. Equipping staff with mobile phones should also be mandatory.

In summary, it is evident that female agricultural extension officers can bring positive change through improved agriculture extension for women farmers. Therefore, the status and needs of female agricultural extension officers must be taken care of by the agriculture extension organisations in PNG. Similarly, if the key extension organisations in PNG acknowledge the important role of women in export crop production and can meet their extension needs, then overall production will rise. This would in turn improve the economic empowerment of women thereby raising their social status and enhancing the livelihoods of their families.

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