



Australian Government
**Australian Centre for
International Agricultural Research**

Final report

Small research and development activity

Project

Improving women's business acumen in PNG: working with women smallholders in horticulture

project number

ASEM/2009/042

date published

September 2012

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final report number

FR2012-23

ISBN

978 1 922137 00 5

published by

ACIAR
GPO Box 1571
Canberra ACT 2601
Australia

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1 Acknowledgments

There were many PNG women, too numerous to mention, who collaborated on this exploratory project from the Eastern Highlands, Morobe and Central Province. Active on the project throughout were principal researcher Norah Omot from the National Agricultural Institute (NARI); Barbara Tomi (NARI), who researched the impact of NARI training programs on women smallholders, assisted by Julie Kolopen, and who worked on the Train the Trainer program; Poela Utama, Debbie Bubon and Cathy Wali, from the Fresh Produce Development Agency (FPDA), who undertook research into the success or otherwise of agriculture extension programs and Maria Linibi, President of PNG Women in Agriculture Development Foundation (PNG WiADF), who undertook a national survey of women members supported by Catherine McGowan Consulting and Val Lang from Australian Women in Agriculture (AWiA).

The input of the Crawford Foundation, facilitated by the AWiA, in providing complementary and concurrent supplementary training and professional travel for the executive of the PNG WiADF is gratefully acknowledged.

The support and wisdom of our ACIAR research program manager, Dr Caroline Lemerle, was invaluable throughout the project.

2 Executive summary

Improving Women's Business Acumen in PNG: Working with Women Smallholders in Horticulture was an eighteen month exploratory study which aimed to contribute to improving the livelihoods of PNG women by examining the constraints affecting their participation in horticulture, reviewing key agriculture extension programs and facilitating the development of training programs in business skills for leaders in the PNG Women in Agriculture Development Fund (PNG WiADF). The Australian Aid Agency (AusAID) through the Agricultural Research and Development Support Facility (ARDSF), and with the assistance of ACIAR through this project, funded a national forum of women members and key national institutional representatives (29 and 30 March 2010). The aim of the forum was to improve institutional arrangements of the PNG WiADF by developing a Strategic Plan, which is gradually being implemented. A mini-workshop conducted by project team members at this national forum of 70 women identified previous successful training, constraints on horticultural participation and priority training needs in capacity building (planning, monitoring and evaluating short courses), post-harvest training (food packaging and processing), marketing skills (negotiation skills, pricing and contracts) and finance/management skills (micro-finance and banking, budgeting, book-keeping and cash flow). It confirmed anecdotal evidence from previous ACIAR projects. The findings from this rapid appraisal of training needs was used as a benchmark against which other project research on women's capacity building and training would be compared

A case study review was undertaken by the National Agricultural Research Institute (NARI) in Morobe province of women smallholders in horticulture who had undertaken previous training in horticultural technologies with NARI. Results revealed that while there were some improvements in farm operations, such as an increase in production and income, there were overwhelming constraints such as lack of follow-up of training during implementation, and more training needed on farm management, savings, accessing credit, and book-keeping. This result was replicated in a review by the Fresh Produce Development Agency's (FPDA) women extension officers of extension programs for women in the Eastern Highlands, Morobe and the National Capital District. Despite the training efforts of agricultural agencies, lack of funds, restricted access to markets and decaying infrastructure, such as poor and unsafe roads, as well as deeply embedded cultural gender role practices, were a constant background 'noise' to improving women's participation in horticulture.

Based on this evidence, a two-stage experimental Train the Trainer program was developed for **twelve** women leaders in the PNG WiADF. Rather than merely providing horticultural content, it emphasised the empowering process of how to design, develop, implement and review training programs for women at the regional or local level. Women worked in collaborative supportive groups to identify a training theme and develop programs for the local level. **Eight** women were able to implement their programs and reported to a second workshop to review progress and evaluate their training. The Train the Trainer workshops were rated highly. Their evaluations of the program further suggested that in future women wanted nationally distributed content-based training which would also allow for regional context, low levels of literacy and would be supported by pictorially based training manuals in Tok Pisin, covering issues such as farm planning and management, micro-finance and banking.

To further strengthen institutional arrangements, the President of the PNG WIADF was assisted to undertake a national survey of women members and unaligned women smallholders. It was discovered that women valued a national women's agriculture association, but wanted a more adequately resourced executive and equitable training support from it.

3 Introduction

Since the workshop on *Women's Voices in the Food Chain* in 2002, women have lobbied to make government policy advisors aware of how much they contribute to agriculture and to sustainable living of their families in PNG and what the impediments are to their greater success. PNG is a neighbouring country reliant on agriculture for sustainability of livelihoods in villages and rural areas and for provision of food to urban people through long distant marketing. In terms of household income in PNG, it is estimated that 75% of income earned by women goes to support the family, while for men the figure is closer to 25% (Garap, 2004; World Bank, 2001; Macintyre, 2000; Cox, 1997; Towandong, 1996). It is further estimated that women contribute 80% of their time to horticultural production for sustainable living compared with 20% of men's time. This study is in line with the efforts of the PNG Government on Gender Equality, as stated in the National Constitution: "We declare our second goal to be for all citizens to have an equal opportunity to participate in, and benefit from , the development of our country." The PNG Government's Eight Point Plan calls for the "equal participation of women in all forms of social and economic development for the country."

The aim of this small, experimental project *Improving Women's Business acumen in PNG: Working with Women Smallholders in Horticulture* was to contribute to the improvement of the livelihoods of PNG women in horticulture by developing their business acumen.

Its objectives were to

1. Research constraints to women's greater participation in horticulture and facilitate the development of women's business skills
2. Improve institutional arrangements for PNG Women in Agriculture to assist in the enhancement of rural women's livelihoods.

The research team consisted of:

PNG: Norah Omot (NARI and PNG Partner Leader); Maria Linibi (PNG WiADF); Barbara Tomi (NARI and PNG WiADF); Cathy Wali, Debbie Bubun and Poela Utama (FPDA, Gender and Youth).

Australia: Barbara Chambers (Project Leader) and Barbara Pamphilon (Australian Institute for Sustainable Communities, University of Canberra) and Cathy McGowan (Catherine McGowan Consulting and Australian Women in Agriculture).

Activities relating to objective 1:

1.1 Review past and present ACIAR R&D projects with components that focused on women in horticulture (Barbara Chambers)

1.2 Gather direct evidence from women in horticulture in PNG about barriers to technology adoption and their training needs for developing business acumen. This will be via an initial workshop of women smallholders from the eastern Highlands, Morobe and Central Provinces. This evidence will be tested and enriched by a small survey of rural women in Morobe villages who had previously participated in NARI training courses in horticulture and marketing. (Barbara Chambers, Norah Omot, Barbara Tomi)

1.3 Review and identify models of best practice in women smallholders' horticultural businesses, including successful cooperative models, with a view to their replication in other areas of PNG. This will involve researching agricultural village extension programs for women in partnership with NARI and FPDA, as well as investigating other smaller modules offered by PNG WiA in Lae. At least two case studies will be compared with cases where there have been impediments to adoption in the

Eastern Highlands, Morobe and Central Provinces. (Norah Omot, Barbara Tomi, Maria Linibi, Cathy Wali, Debbie Bubun and Poela Utama)

1.4 Liaise and provide information based on this research to key R&D organizations working in horticulture in PNG. (Norah Omot and Barbara Tomi)

Activities relating to objective 2:

2.1 Work with the fledgling PNG WiA organization to help in its establishment and implementation by applying negotiated criteria for evaluation based on cultural fit, sound governance principles, strategic planning, leadership, lobbying and future resourcing. (Cathy McGowan – strategic and organisational planning and Barbara Pamphilon - evaluation).

Catherine McGowan Consulting and Val Lang from the Australian Women in Agriculture (AWiA) had supported Maria Linibi, President of the PNG Women in Agriculture Development Foundation (PNGWiADF) to apply for funds from AusAID for a national forum of women and allied government agencies. This was held at the end of March, 2010 and (deliberately) coincided with the launch of this ACIAR project on *Improving Women's Business Acumen*. The purpose of the national forum was to strengthen PNGWiADF's institutional arrangements and "to gain recognition of its role as the *voice of women in agriculture* who contribute to food security through the implementation of the PNGWiADF Strategic Plan." However, the establishment and implementation of an independent PNGWiA organisation was seen to be premature because of a perceived lack of readiness of the PNG WiADF executive to develop, resource and implement a culturally appropriate governance model. Instead, a national survey was designed to find out what women wanted of their organisation, a necessary pre-condition for the development of an appropriate governance model.

2.2 Undertake in partnership with the peak body of PNG WiADF a train-the-trainer program to build capacity to design, develop, monitor and evaluate training programs for women in building their business acumen (especially related to food production and marketing). This would be via two two-day training workshops in Lae during September 2010 and May 2011. (Barbara Pamphilon).

2.3 Undertake in partnership with the peak body of PNG WiADF an evaluation of their initiatives in developing training programs to build business acumen for women smallholders in horticulture. (Cathy McGowan).

Given the lack of readiness of the PNGWiADF Executive to mount training programs for its members, Cathy McGowan organised instead through the Crawford Fund for the PNG WiADF executive to be trained in Floriculture in Lae and Port Moresby in May 2011. The Australian Women in Agriculture (AWiA), through Val Lang and Cathy McGowan, also enabled Maria Linibi, the PNGWiA President to undertake leadership mentoring as part of their annual conference in Darwin in November 2010.

2.4 Share outcomes of this project via a final workshop in Port Moresby with leaders in women's agriculture, relevant R & D agencies and policy organisations about future strategic directions in improving the livelihoods of PNG women in agriculture.

The original intent had been to hold a final research outcomes workshop with all project researchers and partner agencies in PNG, but lack of funding prohibited this and a PNG partner symposium was held at NARI instead in September 2011.

Initially, the small research and development project was to run from 1 January 2010 to 30 June 2011, but NARI, one of our project partners in PNG, asked for a three month extension of time to September 30 2011 so that they could complete Activity 1.3. This was granted by ACIAR.

4 Review past and present ACIAR R&D projects with components that focused on women in horticulture (Activity 1.1)

ACIAR's core business is predominantly in agricultural research but in its recent past Annual Operational Plan 2009-10, under Research Priorities Subprogram 1(p13) there was an emphasis on addressing social, cultural and policy constraints to the adoption of agricultural technologies especially by women. ACIAR has undertaken two important projects since 2003 which highlighted issues surrounding women's participation in agriculture. The first was *Improving the Marketing of Fresh Produce from the Highlands of PNG* (ASEM/2001/037) and the second was *Improving the Marketing Efficiency, Post-harvest Management and Value Addition of Sweet Potato in PNG* (ASEM/2006/035). In the first project, a women's workshop was held for the first time and women shared their stories of impediments to their participation in horticulture. It was astonishing at the time to hear women's voices so clearly, as previous Australian agricultural research – as distinct from international conferences on development (Macintyre, 2000; Garup, 2004) - had largely focussed on men's role in agriculture and marketing. Although there were no objectives relating specifically to women in this first project and therefore few outcomes that benefitted women directly, an extensive literature review was undertaken (see final report 2006) and women's issues were publicly raised with the Department of Agriculture and Livestock and policy changes were flagged to improve their participation in fresh produce (see PNG Government on Gender Equality, 2009). In the second project on sweet potato, objectives targeting women through training in micro-finance and village value-adding enterprises were trialled in the Highlands and Central Province of PNG. There was some success by NARI in developing technologies for the post-harvest treatments of sweet potato (jam, chips, etc.) at the village level, enterprises that could provide women's employment and enhance the sustainability of village-based agriculture. Access to micro-finance appeared to be more successful for women when undertaken as part of a cooperative or collective, but not when accessed by individuals. Recommendations have been made more recently to increase training about the benefits of savings accounts rather than borrowing through such mechanisms as micro-credit, although the large banks such as ANZ and BSP are gradually disseminating banking information across all regions of PNG.

A further project is now underway called *Increasing Vegetable Production in Central Province, Papua New Guinea to Supply Port Moresby Markets Horticulture in the Central Province of PNG* (SMCN/2008/008). As part of this latter project, there is a specific focus on gender and youth but this time, rather than taking a national perspective with PNG WiA, a local perspective is being taken in three villages in one province. Barbara Chambers recently conducted a 'Women and their Daughters' workshop in Port Moresby which reinforced earlier project findings about women's training needs and constraints to their greater horticultural participation. However, the emergent Action Plan identified more diverse training priorities depending on the village to which women belonged. Possible trainers were identified from existing regional agricultural agencies, such as NARI and FPDA in the Central Province, rather than from national groups such as PNG WiA or DAL's Women in Agriculture. Here, women are encouraged to negotiate their own particular training with relevant agencies rather than a one size fits all model.

Women smallholders in horticulture are essential to sustainable livelihoods but presently only contribute surplus crops to local and peri-urban markets. Long distance marketing of produce is predominantly carried out by men. There appear to be structural and cultural impediments to micro-finance access and adoption of new technologies and resources connected with implementation. Women know what the problems (and practical solutions)

are, but there appear to be significant constraints on market participation and few nationally focussed training programs, especially in financial literacy and business skills aimed specifically at women in horticulture and these appear not to have been evaluated. A World Bank report (Hedditch & Manuel, 2010) shows that PNG women need considerable support in accessing credit and notes that whilst women are private sector players they are mainly in the informal economy and need targeted culturally and gender appropriate support. Behind a veil of uncertainty, stories are told of women who are often penalised for their success by domestic violence and their savings denuded by male family members. In addition, successful women may invoke jealousy in other women farmers and tragically, in some cases death may result from allegations of witchcraft. Great sensitivity is needed in strategies to empower women and it appears to help if women's programs are linked to improvements in the wellbeing of families and households.

In order to enhance future ACIAR projects in agricultural development we need to ask **why** new knowledge and technologies emergent from horticulture projects in PNG are only being adopted in a piecemeal way. Anecdotal evidence from women undertaking the Train the Trainer program as part of this project suggest that some NGO training programs make women sign agreements not to share the knowledge gained in their workshops. This militates against sharing horticultural knowledge at the local level and in fact strengthens existing cultural practices of competition between villages and clan groups in agriculture.

In the Highlands, there is evidence from ACIAR projects (ASEM/2001/037 and ASEM/2006/035) that women have been inspired by workshops to attempt implementation of new knowledge and technology emergent from research. Some women have undertaken training in horticulture; others have begun small businesses in, for example, floriculture and flower export. There are several pilot studies based on women accessing micro credit for Community Based Organisations (CBOS). However, this kind of enterprise is not always successful, has not been widely adopted by women smallholders in many villages or communities and apparently is not widespread in the Highlands, Morobe and Central Provinces (Serah Misiel, "Women's Participation in CBOs", Workshop on Access to Credit and Transport for Sweet Potato Farmer-Marketers, Goroka, 17 – 18 November 2009).

A report from UNIFEM, *Who Answers to Women? Gender and Accountability*, (2008/2009), paints a dismal picture across the world of progress in women's equitable participation in their nation. In Pacific nations, the lack of UN data is of concern and of that available, progress in gender equity seems slow. Millennium goals of poverty reduction and sustainable living (AusAID 2005) are priority aid themes through which development projects are funded in such areas as economic growth, food security, gender, governance and rural development (AusAID 2008 Research Activity Document for funding in 2009). In PNG two thirds of the population live within a patriarchal society, the remaining third in a matriarchal society (Kelep-Malpo, 2008: xi). Women have less access to land, resources, credit for small-holder businesses, education and training and yet they are essential to agriculture and the well-being of families and villages (Kelep-Malpo, 2008). In the Central Province workshop on Women and their Daughters, participants indicated they were concerned that food security is becoming an issue with the influx of mining and the LPG project workers, especially into Port Moresby. It is estimated that some 40,000 new arrivals were expected in Port Moresby during 2010 - 2011. Prices for fresh produce will undoubtedly rise and this will have a negative impact for women, who often buy produce in the large city markets and resell it in peri-urban markets as part of their small entrepreneurial businesses. However, this influx with its concomitant demand for fresh food may advantage women smallholders in horticulture if collaborative marketing systems, training in business skills and access to micro-credit can be improved.

We need to ask **what** can be done about larger scale adoption of knowledge and technologies that may be helpful in sustaining smallholder enterprises in horticulture. Constraints to adoption by women may include traditional cultural practices based on gender roles, lack of strategic policy initiatives aimed at the inclusion of women in agriculture, conditions of local and long distance markets that are not supportive of women's participation. The PNG WiADF believes that business training for women smallholders is a large part of the answer. Limited access to micro-credit and the lack of follow-up training programs that address women's particular needs in horticulture appear to be priority areas of research and intervention.

5 Case Study of Women in Morobe Province: Barriers to Technology Adoption and Business Acumen Training Needs (Activity 1.2)

5.1 National Forum

From March 29 to 31 2010, the PNG Women in Agriculture (PNG WiA) held its first National Forum of the organisation with the purpose of reviewing and further developing their Strategic Plan. Cathy McGowan played a key advisory role to the executive, assisted in the review of the strategic planning process and planning for the immediate future.

Around 100 participants took part in the workshop, comprising 73 women from various agricultural groups in PNG and about 30 key partner organisations and stakeholders. It was financially and practically supported by AusAID through the Agricultural Research and Development Support Facility (ARDSF), ACIAR and the National Agriculture Research Systems (NARS) organisations, to name but a few. The Forum endorsed the following elements of the new PNG WiA Strategic Plan:

Vision

PNG women will be prosperous and have improved well being as equal partners in Agriculture for development.

Mission

Our mission is to be the voice of women to be recognized as equal partners and provide a platform that encourages innovation by women in agriculture for development.

Organisational Purpose

To be an effective and efficient voice for women as equal partners and a platform for innovation by women in agriculture for development.

Key Areas

Policy Advocacy; Information and Communications; Partnership and Networking; Organisational Capacity Development and Women in Agriculture Innovations Grant Facility.

Training Needs Analysis

An initial workshop of approximately 60 women from Morobe, Highlands and Central Provinces was held in Lae on the afternoon of 30 March 2010 as part of the PNG Women in Agriculture National Forum. It was facilitated by Barbara Chambers. Women were asked to identify what success they have had as a result of training programs in horticulture; what hasn't worked so well when they have tried to implement new knowledge, technologies and skills in horticulture and what lessons had they learned that might help to improve training programs for women smallholders in horticulture.

Factors leading to success were identified as immersion (from nursery to collection in floriculture); farmer to farmer training; support in the field post-training and partnership with government agencies. Constraints were identified as lack of follow-up by trainers; lack of complementary training (e.g. in farm and office management, finance); poor literacy affecting comprehension of training manuals; lack of practical hands-on training; training in the control of the taro beetle and food-flies; and lack of materials or resources to implement training outcomes (e.g. coconut oil for soap in the Momase region). An emergent cultural constraint is the belief that groups are too competitive and are reluctant to share information and engage in knowledge networking.

Priority training needs identified, apart from strategies identified in factors leading to success, were capacity building in planning, monitoring and evaluation of training programs; leadership (and gender) training for those leading women's groups; business management training, including office skills such as computing; submission writing for funding of women's agricultural groups (especially from women in the Southern Region); marketing skills; food and nutrition training; financial management and accessing micro-finance; in Momase, especially, nursery establishment was identified as a desirable training need (Appendix 1).

In mid-2010 a survey was conducted by Norah Omot, Barbara Tomi and Julie Kolopen with women who had previously participated in NARI training courses in horticulture. Results show a number of constraints women faced in developing their enterprises and identified some suggestions for dealing with those constraints (see Appendix 2 for the full case study report).

- The women identified a number of challenges that impede their farm operations. The major challenges include: difficulty in finding buyers for their farm produce; inadequate transport service resulting in longer waiting time and less time on actual selling; lack of access to funds/credits; and family not providing adequate labour to the farm.
- The women received some technologies and training from NARI, but although there were some improvements in farm operations (increase in production and income) as a result of these research technologies and training, the women indicated need for more training especially on farm management and book keeping.
- Some women who had received research technologies and information had stopped utilizing them because of some constraints. The most important constraints they indicated are lack of funds and lack of access to markets. Also important are poor market prices and lack of credit facilities. This raises important issues for technology adoption and impact. If farmers are constrained in implementation of research outputs, impact on farm level will be low (except if they are producing for subsistence use), unless these issues are adequately addressed. There is need for innovative ways to deal with these issues at the same time, when research outputs are delivered to farmers.

5.2 Farmers who received NARI research technologies and training

- In this case study, 19 women were interviewed. These women were mainly engaged in semi-commercial farming of fruit and vegetables.
- The women identified a number of challenges that impede their farm operations. The major challenges include: difficulty in finding buyers for their farm produce; inadequate transport service resulting in longer waiting time and less time on actual selling; lack of access to funds/credits; and family not providing adequate labour to the farm.
- Fourteen (out of 19) women interviewed participated in training conducted by NARI and 71% of them indicated an increase in crop production and farm income as a result of the trainings. They received training on rice agronomy, peanut agronomy, vegetables nursery, taro agronomy/beetle, potato agronomy and rice and grain food processing.
- Eight (out of 19) women interviewed had received research technologies from NARI and 50% of them indicated an increase in farm production and income as a result of the technologies received. The technologies included Fruit fly control methods for guavas and capsicum, African yam, duck and improved taro variety.
- Although there were some improvements in farm operations (increase in production and income) as a result of the research technologies and training, the women indicated need for more training especially on farm management and book keeping.
- Some women who had received research technologies and information had stopped utilizing them because of some constraints. The most important constraints they indicated are lack of funds and lack of access to markets. Also important are poor

market prices and lack of credit facilities. This raises important issues for technology adoption and impact. If farmers are constrained in implementation of research outputs, impact on farm level will be low (except if they are producing for subsistence use), unless these issues are adequately addressed. There is need for innovative ways to deal with these issues at the same time, when research outputs are delivered to farmers.

5.3 Research technologies and training

- NARI delivered a total of 6 training courses and 4 technologies over the last 2-3 years. The technologies included 3 fruit fly control methods for guavas and capsicum. Women had better access to training if these were conducted in villages and technologies were mostly accessed at NARI shows and stations.
- The women identified a number of steps required to improve the delivery of research technologies and trainings to them. To improve delivery of training and technologies to farmers, the women interviewed indicated they want the contents of information brochure as well as the delivery of trainings to be in pidgin and for trainings to be conducted in villages. The women also indicated they want follow-up programs by research and extension officers. They feel that follow-up programs will encourage them and lead to sustainability of their operations. The process they highlighted to improve delivery of training and technologies include: training and technology content, target group, place/venue, timing and follow-up programs.

6 Review and identify models of best practice in women smallholder's horticultural businesses, including successful cooperative models (Activity 1.3)

NARI and FPDA collaborated on this objective, although they submitted separate reports to the project leader and ACIAR in the first instance. Combined results are presented below.

6.1 Factors contributing to success of enterprises

- Having established markets or good access to markets.
- Viewing and taking farming activities as a business.
- Availability of seeds and other inputs.
- Informal education – other capacity building activities and training were very important. Most women who had received such training are currently implementing them.
- Affiliating to agriculture networks. Some women indicated their businesses were exposed to a bigger audience and this enabled them to have their products promoted. For example, women from ENB joined a cooperative enabling them to host Annual Flower shows, which boosted their operations.

6.2 Benefits from successful implementation of knowledge, information and skills gained from training on enterprise operations

- Economic - (Making profit from operations, Expansion of farm operations, and Ability to constantly invest into farm operations).
- Social - (Recognized social standing with family and within the community. Others in the community showing interest in the enterprises the women undertake, and Public recognition of success of their enterprises).

6.3 Factors constraining women farmers from being successful

- Agro factors - (Poor seed supply, High costs of tools/chemicals, Pest and Disease problems, Lack of access to information on improved agricultural practices).
- Infrastructure - (Transport costs are high, Poor road conditions, Not having mechanization that can harvest and store water to use during dry spells and/or managing excess moisture during wet periods, Not able to afford farm mechanization, high cost of hire of Tractors, Poor availability of transport, Poor access to credits)
- Social - (Jealousy -e.g.; death of an active innovative woman farmer at the beginning of 2011 due to sorcery?, Some women do not except technical ideas like crop spacing, Not perceiving farming as a business (e.g. as long as their basic needs are met, they are satisfied and have no desire to expand, Cultural restrictions to land and access for expanding farm, Community commitment (Doing community, church or other cultural activities like bride price, feast),
- Capacity/skills - New skills learnt that may required more labour than the growing of traditional crops, Lack of knowledge on curing, storing, packaging and marketing; Improper packing resulting in loss of quality upon arrival at market, Insufficient funding for extension officers (VEW), Not value adding or using available resources for other purposes (e.g. not using cassava with NARI concentrate for chicken feed), Lack of business skills, Lack of bookkeeping/record keeping skills, Low literacy

6.4 Recommendations

6.4.1 Capacity/skills training: To improve delivery of training and technologies to farmers, women want the contents of information brochures and delivery of training to be in *Tok Pisin* and training to be conducted in villages, wherever possible.

6.4.2 Follow-up: The women also want follow-up training programmes by research and extension officers, not just one-off training exercises. The training should be on:

- literacy
- basic skills for small business management
- book-keeping
- simple irrigation skills
- basic skills on vegetable production
- gender roles
- improved agricultural practices and
- post-harvest techniques.

6.4.3 Co-operatives: Women smallholders in horticulture should form provincial co-operative groups similar to those established by women in East New Britain province (ENB WYIACA) and Abau Women in the Central Province. The groups are having some success and are working towards mobilizing farming groups into cooperatives to engage the 'power of solidarity'.

6.4.4 Establishment of smallholder farmer loan schemes

6.4.5 Invention of farm machines that are suitable for PNG conditions, e.g. water harvesting and simple irrigation systems

6.4.6 Specially modified vehicles with cooling systems ideal for transporting highly perishable crops from farm gate to markets and providing communal tractors for hire.

7 Liaise and provide information based on the research in 1.1 and 1.3 to key organisation working in horticulture in PNG - ACIAR, AusAID, NARI and FPDA (Activity 1.4).

Research reports linked to 1.1 and 1.3 were provided by Barbara Chambers in Trip Reports to ACIAR. In addition, Norah Omot and Barbara Tomi as knowledge navigators circulated case study reports to NARI Managers, FPDA and through the PNG WiA Development Foundation to AusAID in PNG. As there were women researchers in Cocoa and Coconut Institute (CCI) and Coffee Research Institute (CRI) who are interested in women issues, reports were provided to them as well. Copies of NARI and FPDA research reports were also displayed as part of a theme on Gender at the Research Fair in Port Moresby on 6th June 2011. Publicity was given to outcomes of case studies and workshops by Barbara Tomi in NARI's Nius journal (see 9, Publicity).

8 Capacity building, governance and training of women leaders in business acumen (Activities 2.1, 2.2, 2.3 and 2.4)

Activity 2.1: Work with the fledgling PNG WiA organization to help in its establishment and implementation by applying negotiated criteria for evaluation based on cultural fit, sound governance principles, strategic planning, leadership, lobbying and future resourcing. (Cathy McGowan – strategic and organisational planning).

This activity was modified in December 2010 at the suggestion of Cathy McGowan because of the perceived lack of readiness of the PNG WiADF executive to develop, resource and implement a culturally appropriate governance model. Instead, a national survey was designed to find out what women wanted of their organisation, a necessary pre-condition for the development of an appropriate governance model. In addition, Cathy McGowan organised through the Crawford Fund for the PNG WiADF executive to be trained in Floriculture in Lae and Port Moresby in May 2011. The Australian Women in Agriculture (AWiA), through Val Lang and Cathy McGowan, enabled Maria Linibi to undertake leadership mentoring as part of their annual conference in Darwin in November 2010.

8.1 National Survey

A national survey of PNG WIA Development Fund (PNG WiADF) was conducted in January 2011 with the assistance of Cathy McGowan and Val Lang from the Australian Women in Agriculture organization (see Appendix 3). The main purpose was to get an idea of just how many members there were, what were the main motivations for joining the organization and what did women expect of it. There were 90 registered groups and 5,000 women in the network covering 19 provinces in PNG.

The main motivation for joining the organization was that women farmers lack skills training and financial assistance to motivate them in their farming business activities. Their expectation was that the organization would provide training, access to finance and markets. While the network was useful, the organization did not have an adequate infrastructure, especially human and financial resources at the executive level to provide the required support.

However, the consultation achieved a number of key outcomes:

- It provided an opportunity for members of WiA to meet together, to talk with their President, to network, share information and to discuss matters of importance to the organisation.
- It provided an opportunity for members to learn about the organisation and to share their aspirations and expectations in an open, frank and secure environment.
- It enabled the partners of WiADF to work together in supporting WiADF and to improve their knowledge of the organisation and opportunities for working together in the future.
- The consultation provided an opportunity for a significant amount of relevant data to be collected. This data has been used by WiADF for their AGM in September 2011 and as it implements its work plan for 2011-2012.
- Provides strategic information to donor organisations to support PNG WiADF. In summary the 6 main areas for action were seen to be:

- Access to training

- Access to resource centers
- Building sustainable relationships within the market system
Enhanced communication
- Gain adequate finance for the running of a national NGO
- Governance

Activity 2.2 and 2.3: Undertake in partnership with the peak body of PNG WiADF a train-the-trainer program to build capacity to design, develop, monitor and evaluate training programs for women in building their business acumen (especially related to food production and marketing). This would be via two two-day training workshops in Lae during September 2010 and May 2011. (Barbara Pamphilon).

8.2 Train the Trainer Business Acumen Program

The train the trainer program consisted of two workshops which had three purposes: to continue the development of the training and leadership skills of participants, to assess with the participants the implementation of the local training courses they delivered, considering both the effectiveness of the training and their leadership and through this process gain a deeper understanding of the business skills issues and needs of women smallholders in PNG. Twelve women leaders from PNG WiADF commenced the program and eight completed it. The full group's analysis of the lessons learned and the recommendations that they determined as the important next steps in the further development of the business skills of women smallholders are as follows:

8.2.1 Business skills will not be able to be developed until **basic literacy** of adult women is improved. Churches are already running some literacy work and there are local people who have skills in literacy development.

It is recommended that:

1. Partnerships be developed with churches that already have literacy programs
2. Specific training materials be developed for semi-literate people

Women who typically have about Grade 10 level education need **middle level business skill development**. The skills should focus on helping to develop a 'save' not 'spend' attitude and to increase the level of banking in families. Mobile phone banking be able to be introduced and would then provide greater safety for women. Once banking has become a norm then microcredit skills can be made developed.

It is recommended that:

3. Business skill training is focused on budgeting, savings plans and managing money through a bank account and SMS banking.

Mothers are the most appropriate people to train and within PNG families are the most opportune way to ensure transfer of learning.

It is recommended that:

4. The training should focus on women who can be shown how to create family learning peer groups within their own existing networks

8.2.3 Emerging businesswomen will be identified through the middle level training. These women will be a smaller number in any given area and will have more unique learning needs (business documentation, invoicing, receipts, profit/loss, insurance and business registration) which could be met by connecting them with other business women, providing mentoring and training as needs arise and by targeted courses in more advanced general business skills. A major issue for emerging businesswomen is access to appropriate micro-credit and loans.

It is recommended that:

5. The best way to address the needs of emerging business women be explored during the roll-out of the other business training modules
6. Microcredit is a need for emerging business women

8.2.3 Gender issues are tightly linked to **cultural issues**. Although women have a lower status than men, they are pivotal to improving family livelihoods, as all they learn will be implemented across the whole family. Women are the central sources for family learning needs analysis as men will not be willing to share where they have gaps. Given the incidence of domestic violence, the group stressed the importance of developing training courses that were acceptable and supported by men in the family. They suggested that courses could be run for the whole community with separate sub groups for men, women and youth. Alternatively there could be an awareness session for both husband and wife, which would be followed up by the more intensive training for the wife. Men make family decisions and if they support the decision to develop a Savings Plan, there will be less chance that they will later oppose the wife's actions in saving for the whole family. The Church was a further key in gaining wide support at a community level.

It is recommended that:

7. Ways to gain the support of men are trialed
8. The training be focused on the development of women's skills but be open to the involvement of all interested men and youth

8.2.4 At a **program level**, there were a number of insights. The **trainers** were keen to deliver training but the costs of travel and training materials are prohibitive, especially as they are also running their own farms. A reimbursement for costs and a small daily allowance would enable a more effective and sustainable delivery. Trainers should have official identification (nametags, training bag or shirt) and train in pairs so that

communities were reassured that these people were not con-meris. The group strongly believed that there is now the potential to develop a full Training Guide and resource materials, which will enable wider recruitment of trainers and greater confidence and consistency through using approved training materials.

It is recommended that:

9. A full Training Manual and resource materials be developed

10. A sustainable training model be developed

Further as the partnership with Sandaun DAL¹ and PNG WiA in this project has illustrated, there is a great potential to use the provincial level of DAL as the managing partner for the WiA Women Smallholder Business Skills Training. DAL could manage funds, provide basic administration and have a budget for an annual rollout of training and follow-ups as relevant to that province and which would fulfil their women in agriculture development goals. Although NARI's support has been valued the group noted that it is not nation-wide in the same way that DAL is.

It is recommended that:

11. A wider reach for the training is developed through the development of a partnership model between WiA and DAL at the provincial level.

Overall the group believed that the further development of business skills of women smallholders is essential. They noted how the aims of this work fit very well into a number of priority areas in the PNG Vision 2050² and as such believe that a wider number of partners should be possible from both government (Community Development, Commerce, Education, Primary industry) and non-government (Churches³, Banks, Agricultural sector agencies, such as NARI and FPDA and cooperative Societies).

Activity 2.4: Share outcomes of this project via a final workshop in Port Moresby with leaders in women's agriculture, relevant R & D agencies and policy organisations about future strategic directions in improving the livelihoods of PNG women in agriculture.

¹ DAL staff recommended that the District Food Crops Officer and the Agriculture Function Grants could be the most suitable links at a provincial level

² Strategic Focus Area 1 Human Capital Improvement, Gender, Youth and People Empowerment; Strategic Focus Area 2 Wealth Creation ; Strategic Focus Area 6 Spiritual, Cultural and Community Development

³ In addition to this ACIAR activity, one week was spent in Mt Hagen and the Baiyer Valley (separately funded) as part of a PhD research project on successful models of school governance. This was very timely as the host institution, the Baptist Union of PNG, have a strong community development team who are members of PNG WiA and who are already offering basic financial literacy training to women. Two of their schools are about to start High Schools that will have an agricultural development focus through the "Making a Living" subject. Both teams have a keen interest in further developing women's and/or youth business skills and have the administrative and staff capacity to be formal partners.

The original intent had been to hold a final research outcomes workshop with all project researchers and partner agencies in PNG, but lack of funding prohibited this and a PNG partner symposium was held at NARI instead in September 2011 with FPDA and NARI researchers in attendance. The focus was on reviewing project reports and undertaking a synthesis of outcomes for the final report to ACIAR at the end of October 2011.

9 Publicity

There were several media reports on the project, which included

1. *Radio National Pacific Beat* with Linda Mottram, on Friday 5 March 2010 for International Women's Day
2. *Radio National PNG* live interview with Dora on Monday 8 March 2010 for International Women's Day
3. *Radio 2 SCR* (Sydney 107.3) pre-recorded on 5 March 2010 for International Women's Day in Sydney
4. *Monitor*, University of Canberra Magazine on 10 March 2010
5. Barbara Tomi, *Agriculture women set future in plan*, NARI Nius, Vol 13, Issue 1, 2010 p.6
6. Barbara Tomi, *Women Speak out in Survey*, NARI Nius, Volume 14, Issue 1, 2010 p.9

10 Conclusions and recommendations

10.1 Conclusions

A review of woman's training in agriculture in Morobe, Eastern Highlands and the Central Province, as well as trialing a Women's Business Acumen Program for PNG WiADF leaders, revealed the following specific constraints and opportunities.

1. The women identified a number of **Agri-business** challenges that impede their farm operations. The major challenges include: difficulty in finding buyers for their farm produce; inadequate transport service resulting in longer waiting time and less time on actual selling; lack of access to funds/credits; and family not providing adequate labour to the farm. Other challenges include expensive inputs and poor quality seed, which meant they cannot afford (expensive) farm implements; not being connected to women's network; lack of infrastructure and storage facilities – especially mechanization for harvest and water storage/management; lack of business management skills (including book keeping skills); lack of follow-up programs from training received earlier and illiteracy problems.
2. Women also identified some **Social** constraints affecting their business acumen. Some women fear being too successful or being a "tall poppy". For example, jealousy was given as the reason for the death of an active, innovative woman farmer in Morobe at the beginning of 2011 and was attributed to sorcery. Some women do not accept technical ideas like crop spacing, because of reliance on traditional farming methods. Some women do not perceive farming as a business (for example, as long as their basic needs are met, they are satisfied and have no desire to expand their production). There may be cultural restrictions to land (and growing certain crops) and access for expanding the farm. Community commitments take priority at certain times, (for example, church activities or other cultural obligations like bride price or feasts).
3. The women received some technologies and training from NARI and FPDA, but although there were some improvements in farm operations (increase in production and income) as a result, the women indicated a need for more training especially on farm management and book keeping. Other areas suggested for training were for savings (how to save money), soil fertility management and accessing credits.
4. Some women who had received research technologies and information had stopped utilizing them because of constraints such as lack of funds and lack of access to markets. Also important are poor market prices and lack of credit facilities. This raises important issues for technology adoption and impact. If farmers are constrained in implementing research outputs, the impact on farm level will be low (except if they are producing for subsistence use), unless these issues are adequately addressed. There is need for innovative ways to deal with these issues at the same time, when research outputs are delivered to farmers.

10.2 Recommendations

In terms of improving women's business acumen through training, the following interventions are recommended:

1. To improve delivery of training and technologies to farmers, the women interviewed indicated they want the contents of information brochures as well as the delivery of training to be in pidgin and for training to be conducted on-site, in villages. Undertaking training on-site would provide the cultural and social context for improvements in women's horticultural practice.
2. Partnerships be developed with churches that already have literacy programs and specific training materials need to be developed for semi-literate people
3. Business skill training should be focused on budgeting, savings plans and managing money through a banking account and SMS banking.
4. Access to micro-credit is essential for emerging business women
5. Training should focus on women who can be shown how to create family learning peer groups within their own existing networks
6. Strategies to gain the support of men for women's training need to be explored and trialed and while women's skill development is a priority, such training should also be open to the involvement of all interested men and youth
7. Training needs to be rolled-out through the development of a partnership model between PNG WiADF and DAL at the provincial level.
8. Follow-up programs by research and extension officers are urgently required. Women feel that follow-up programs will encourage them and lead to implementation and sustainability of their operations. The expressed need for mechanisation and infrastructure may give rise to opportunities for collaborative horticultural practices. Women interviewed were aware of their lack of knowledge about identifying and growing new crops and their lack of skill in value adding or improving post harvest management – curing, storing, packaging and marketing issues - and were aware that such things would require more time and/or labour than was presently used.
9. Women engaged in central markets and having an entrepreneurial orientation will be better targets for training in improved horticultural practices than women who are only interested in sustainable family agriculture and local markets for excess produce.
10. That the findings of this rapid appraisal through exploratory research will be used as a benchmark against which other project research on women's horticultural capacity building and training will be compared.

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12 Appendixes

12.1 Appendix 1:

Workshop to Review Issues and Training Needs in Developing Business Acumen

PNG Women in Agriculture Development Fund (PNG WiADF) National Forum, Alan Quartermain Hall, NARI, Lae

1400 – 1630, 30 March 2010

1. Review Issues and Training Needs in Developing Business Acumen (N=57)*

1.1 Invitation to story-telling about

- a) What successes you have had as a result of training programs in horticulture?
- b) What hasn't worked so well when you have tried to implement new knowledge, technologies and skills in your smallholdings in horticulture?
- c) What lessons have you learned that might help to improve training programs for women smallholders in horticulture?

Method: Groups of no more than twelve - fifteen will be organised on the basis of regions: Highlands (Cathy Wali, table facilitator); Momase (Debrah Bubun and Barbara Tomi, table facilitators); Southern Region (Poela Utama, table facilitator); New Guinea Islands (Barbara Chambers, table facilitator). Appoint a group leader and someone to write down - in large hand writing - on butcher's paper the **key points coming out of stories about a), b) and c)**. Pens are provided. Stick the butcher's paper on the wall where everyone can see it. The group leader or some other group member will be invited to share their group's key points with the whole workshop. (45 minutes)

1.2 Responses

a) Successes in training:

Eastern Highlands Region

- Chimbu on Floriculture – women are highly motivated and involved in the nursery, growing pruning and flower collection
- African Yam – adoption of new technology has been very good. This was farmer to farmer training and led to production increases and successful marketing and catering.

Western Highlands Region

- Vegetable Production Training by FPDA. Production increased and more people are involved.

Southern Region

- Kutubu Women's Rice Production. Rice becomes a household issue. Attracted male folk and government developers to work as partners.

Momase Region

- Some success as a result of training programs in horticulture
- Income earning in the short term – vegetables grown and sold to supermarkets and hotels
- Food security – Indian guava and other fruit diversity
- Cabbages locally grown and sold 'without training for skills and knowledge'
- African Yam multiplication

New Guinea Islands Region

- Taro Beetle Control: the technology of using chemicals was well adopted by the farmers, especially the women because a) the chemical was effective b) the method was easy c) it was economical and d) the method of training was hands-on.

b) Constraints affecting groups:

- Chimbu – flower assignment; marketing; no follow-up by trainer/facilitator; no complementary training
- Management needs in book-keeping, reporting; farm inventory
- Material and resources not available (e.g. no milling machine; coconut oil for soap)
- Insufficient labour/manpower
- Lack proper training, for example, exposure to introduced and improved methods in growing water melon, cucumber, pumpkin resulting in higher yields (pruning to increase yields, etc.)
- No follow-up due to lack of resources e.g. funds, transport, etc.
- Growing Taro well, but lack training in planting (local knowledge used following multiplication methods), soil management and pest and disease control (beetle, flies)
- In the NGI, there was a lack of transport by the DPI Officers and there were gender implications for both officers and farmers. Training of individual farmers was expensive and time-consuming and chemicals and equipment were largely unavailable. In some case there was a fear of using chemicals. Illiteracy and ignorance were also factors, as were cultural obligations.

c) Lesson learned:

- Need for regular follow-up after training
- Need for complementary training
- More collaborative partnership
- In rice, no formal training with most of the groups
- Need baseline literacy training
- Need for practical hands on training and demonstrations (e.g. nursery, planting, weather, application of pesticides and fertilizer).
- Local knowledge and experience is essential
- Information sharing/networking is essential
- Background reading from books and magazines helps
- In the NGI, provision of transport and finance is important, as is gender equity.
- In the NGI, organising farmer groups and training in chemical use and safety, as well as making chemicals more widely available.
- In the NGI, training literate trainers to train the illiterate and ensuring good communication between farmers and the DPI Officer is essential.

2 Invitation to tell us about your training needs in Business Acumen (knowledge, technologies and skills).

Method:

- (a) In your same small groups of no more than twelve - fifteen people (i.e. Highlands, Momase (2 groups needed), Southern Region and New Guinea Islands) appoint a group leader and someone to write down - in large handwriting – on butcher's paper **at least 5 priority training needs to improve the business acumen of women smallholder in horticulture**. Stick the butcher's paper on the wall where everyone can see it. (45 minutes)
- (b) The group leader or some other group member will be invited to share their group's priority training needs with the whole workshop.

Table 1: Priority Training Needs By Region (N=57)

Region	Capacity Building	Post-Harvest Training	Marketing Skills	Finance/Management Skills
Highlands (N = 15)	Planning, monitoring and evaluation of short courses	Food packaging	Agri-business management	Micro-finance
	Report writing	Food processing	Marketing negotiation skills	Budgeting and cash flow
	Duties and responsibilities	Food production	Ways of marketing	Book-keeping
	Mind set training	Training manuals	Secure Marketing	Money management
	Submission writing			Successful Business Skills
				Record Keeping
Momase 1 (N = 15)	Train-the-trainer preferred method	Food and nutrition	Marketing training	Book-keeping skills and cash-flow
	Leadership and gender training	Crop production training	Pricing	Financial knowledge, banking and micro-finance
	Computer skills	Nursery establishment	Grading and packaging for markets	Gross margin training
	Adult Literacy	Floriculture training		Record keeping/Acquittals
	Management skills	Flower arranging		Budgeting and accessing credit facilities
	Report, acquittal and proposal writing	Post-harvest handling	Marketing contracts	Stock taking and management planning

Region	Capacity Building	Post-Harvest Training	Marketing Skills	Financial Management Skills
Momase 2 (N = 12)	Communication with other agencies (e.g. DPI)	Storage facilities	Marketing partners	Computer training
	Counselling	Easy to read training manuals	Economics of crops	Business start-up and accessing credit facilities for women to source as working capital
Southern Region (N = 12)	Writing project proposals to seek funds for our farming system*	Support materials on post-harvest vegetable production	Marketing skills and transport	Business management
	Project evaluation			Simple book-keeping
	Distribution of FPDA horticulture training manuals to assist in training*			Financial management
	Train-the-trainer methods preferred			Micro-finance
	Leadership/networking and communication methods			Savings for future planning
New Guinea Islands (N = 3)	Office bearer duties			Basic book-keeping
	Most methods are traditional and therefore training needed on improved agricultural methods	Concern about proper use of chemicals		Micro-finance – access and training
	Use of chemicals training versus organic methods	Packaging information needed		Banking skills/mobile phone banking
	Follow-up training needed (consecutive building-bloc training, not fragmented training)			Office management skills

*Note to Lukus Kindiwa (FPDA) on wider distribution of the ACIAR/FPDA field manual developed by John Spriggs et al (2007) called *Quality Management of Fresh Produce from the Highlands of Papua New Guinea: A Postharvest Manual*.

(c) **Are the lists similar or very different? Why might this be so?**

Members of the group commented that there was a high degree of consensus about the need for train-the-trainer methods of training in business management, leadership, micro-finance access, literacy training and an increasing need for training in how to write proposals for funding, given that the government was making more money available to the regional level, especially for women. Women in the Island group were more concerned about chemicals affecting their food crops compared with organic (traditional) methods.

3 Outcome

The purpose of the workshop involving some 57-65 women was to further research constraints to women's greater participation in horticulture (Objective 1) and to ascertain their priority training needs. This has been achieved and endorses outcomes of the previous literature search underpinning this project's justification. The women's workshop also provided data for planned Activity 2.2 of this project, which was to "Undertake, in partnership with the peak body of PNG WiA, a train-the-trainer program to build capacity to design, develop, monitor and evaluate training programs for women in building their business acumen". The training needs expressed by women were numerous and diverse. Capacity Building and Financial Management needs will be incorporated, where possible, in proposed training in Program Design, Implementation and Review for Business Acumen (Barbara Pamphilon) and Leadership training for PNG WiA leaders will be addressed by Cathy McGowan as part of this project.

Many of women's training needs cannot be met by this project and that was made clear to the workshop. However, they were also told that Norah Omot and Barbara Tomi are acting as knowledge brokers for the project and will disseminate workshop outcomes to other relevant aid agencies, such as AusAID and relevant PNG departments, such as DPI and Education. These agencies may be able to pick up on such training needs as literacy and counselling. Other ACIAR project leaders (Christie Chang/Suzie Newman and Colin Birch) will be informed of Post-harvest and Marketing training needs. Of concern was that the ACIAR/FPDA field manual developed and edited by John Spriggs et al (2007) called *Quality Management of Fresh Produce from the Highlands of Papua New Guinea: A Postharvest Manual* has not been, apparently, widely distributed to women in horticulture in the Highlands and the FPDA Office in Goroka will be alerted to this as it is understood that there are still boxes of manuals available in the Highlands.

Consent forms were completed by women who wanted to participate in the intended training programs to be run by Barbara Pamphilon in September 2010 and January 2011. Consent forms were also completed by women who were willing to participate in a survey to be conducted by Norah Omot and Barbara Tomi (NARI) in April/May 2010 about what women were able to implement from NARI training programs and what were the constraints to adoption of new knowledge, technologies and skills (Activity 1.3).

Barbara Chambers

April 2012

12.2 Appendix 2:

NATIONAL AGRICULTURAL RESEARCH INSTITUTE



ACIAR Project (ASEM/2009/042): Improving Business Acumen for Women Smallholders in Horticulture

Case Study on the Impact of NARI's Technologies and Training on Women's Farm Operations in 4 Sites around Lae, Morobe Province.

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Abstract

A case study was conducted to determine the impact of research technologies and training on farm operations of women farmers and to determine additional training needs they may have. The study was conducted in 4 sites near Lae. Nineteen women were interviewed and results show that women are benefiting from the trainings and technologies received. Whilst the trainings they receive are improving their agronomic and food processing skills and knowledge (as reflected in improvements in production and farm income), they lack skills and knowledge on the business aspect of farming. The women also identified many constraints to their farming operations such as lack of funds, lack of market and low labour input from families.

1.0 Background

About 80% of the women in PNG live in rural areas and are directly involved in agriculture. They engage in a number of activities such as growing, harvesting, processing and marketing of food. Most of the activities related to food production are subsistence oriented, but women are increasingly involved in small scale food production and marketing for income purposes.

Despite their efforts, studies have revealed that women are slow to improve their business acumen because of significant constraints they encounter, such as: lack of access to road/transport; no water for irrigation (in some places); no market; lack of funds; and lack of access to land. In addition to the infrastructure and facilities constraints, women also indicated constraints related to illiteracy and lack of knowledge on good agricultural practices and book keeping. Many of these challenges have also been voiced by women in various workshops and consultations such as 'The Women's' Voices in the Food Chain' (Philpott et al. 2004a; Philpott et.al. 2004b)

A survey report on 'The role of women in production and marketing of peanut in the Markham Valley of Papua New Guinea', also revealed that women ranked book keeping and savings, pests and diseases control, and soil fertility management, as important training needs and expressed that lack of agricultural knowledge, lack of visits and advice by extension workers and illiteracy, were major constraints to participation by women in peanut production in the valley. Those women also indicated that peanut production and marketing was an important source of income for them (Kolopen et. al. 2006).

Hence, there a number of constraints that impede the efforts of women and while infrastructure and facilities constraints cannot be addressed directly by research, constraints on farming and business skills and on training can be addressed through facilitation of training and skills development. Such trainings can contribute to building skills of women and leading to improvement in their livelihoods.

2.0 Objectives

The main aims of the case study were: (1) To determine the impact of research trainings and technologies on women's livelihoods, (2) To determine training needs they may still have and (3) To provide input on the training needs required by the women, to the Australian Centre for International Agricultural Research (ACIAR) Project on Improving of Business Acumen for Women Smallholders in Horticulture.

3.0 Method

A survey questionnaire was developed to collect information in the case study. The questionnaire had 3 sections. Section A, contained 12 questions related to trainings and technologies that women may have received from NARI in the past 3 years and questions on whether the technologies and information received had been beneficial to them or not. Section B contained 3 questions on trainings and technologies that was not covered in section A while Section C contained questions related to demographics of the women farmers.

3.1 Interview

The interview of women was conducted at 4 sites around Lae. The sites included Mannum village in the Wampar Local Level Government of Huon District, Intoap village in the Onga/Waffa Local Level Government area of Markham District, Poahom village in the Lae Urban District and at Bubia station where the National Agricultural Research Institute (NARI) is located.

3.2 Data analysis

Data collected was analysed using the excel spreadsheet. Results were generated using tables and graphs.

4. Results on the Farmers

4.1. The Women in the Case Study

A total of 19 women farmers were interviewed. One farmer was from Mannum village, 8 were from Mutzing village, 7 were from Poahom village and 2 women resided near NARI's research station. The women were identified from existing lists of people who had received technologies and training from NARI. Unfortunately, some of the lists did not have contact details of other women participants so the sample size was limited to only 19 women who could be contacted. These women engaged mainly in semi-commercial vegetable and fruit farming.

4.2. Challenges that impede the furtherance of their farm operations

The women interviewed listed a number of challenges they face as farmers. These challenges include: misuse of funds by family members, lack of funds/credits, lack of labour, lack of farm implements, no women network, market problems, lack of infrastructure/transport, lack of business management skills, lack of book keeping skills, lack of information on credit facilities, expensive inputs, lack of follow up programs, illiterate, lack of storage facilities, and attitude problems.

The challenges that were indicated by 4 or more women are listed in Table 1 below:

Table 1. Challenges impeding women's farm operations

Challenges	Proportion (%) of Women Indicating this (N=19)
Marketing	21
Lack of transport/infrastructure	15
Lack of funds/credits	15
Inadequate labour (less support from families)	12

With marketing, the problem was finding buyers for the products. With transport/infrastructure, the problem was inadequate transport service resulting in more time spent in waiting for vehicles and shipment and less time on actual selling. Lack of funds/credits was related to access of such facilities while inadequate labour was due to insufficient support from family members on the farm.

The results confirm challenges that women continue to face, as identified from other studies, workshops and meetings (Philpott et al. 2004a; Philpott et al. 2004b; Kolopen et.al. 2006).

4.3. Impact of research technologies and information on farming practices of women

The women in this case study had been exposed to research technologies and training that came from NARI. To determine the impact of these technologies and training on their farm activities, they were asked to indicate whether there had been an improvement in their farming practices and livelihood since receiving the training and technologies. Fourteen (out of 19) women interviewed, had participated in the trainings and from this group, 10 of them (71%) said the training they received, contributed to improvements on their farms. They noted an increase in crop production and farm income. Some of the women participated in more than one training.

The trainings the women participated in are presented in Figure 1. The Figure shows the allocation of women (by numbers) on the different trainings received. Results show that most of the women interviewed (12 out of 19 indicating this) participated in trainings on the taro agronomy/beetle/virus technology, while 3 of the women participated in trainings on rice and grain food processing and 2 of the women participated in the training on peanut agronomy. One women each, took part in the trainings on rice agronomy, potato agronomy and vegetables nursery respectively.

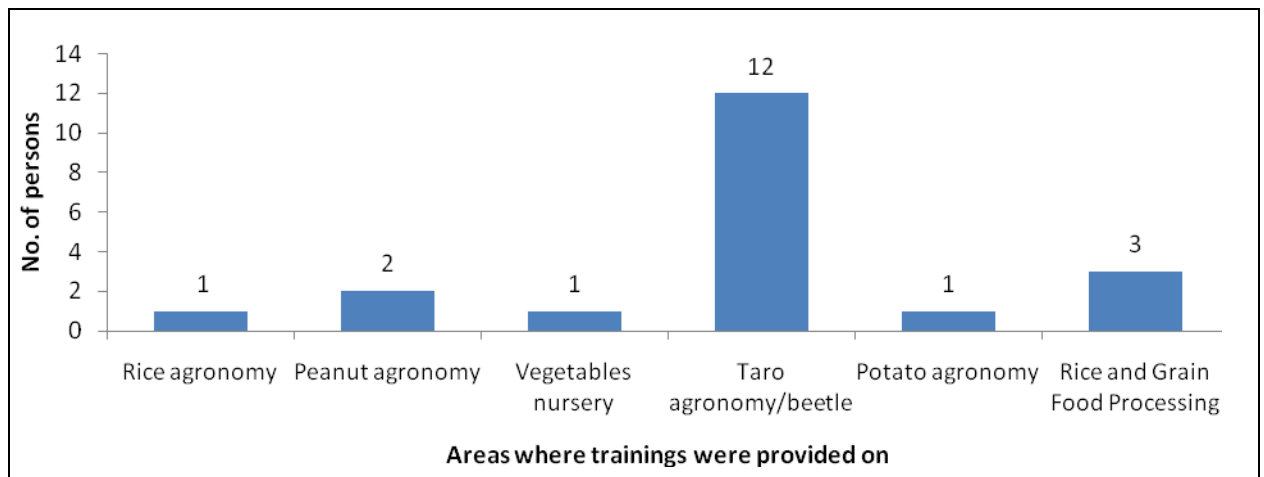


Figure 1. Number of women in percentage participated in each training conducted by NARI

Eight (out of 19) women interviewed, indicated they received technologies from NARI. Four women from this group (50%) said the technology they received, contributed to improvements on their farms. These women also noted an increase in their farm production and income. The technologies and number of women receiving them are presented in Figure 2. The results shows that 2 women each, received technologies on improved taro variety and capsicum fruit fly methods respectively, while 1 women each, received technologies on duck, African yam seed multiplication technique, Indian guava fruit fly control method and Vietnam fruit fly control method, respectively.

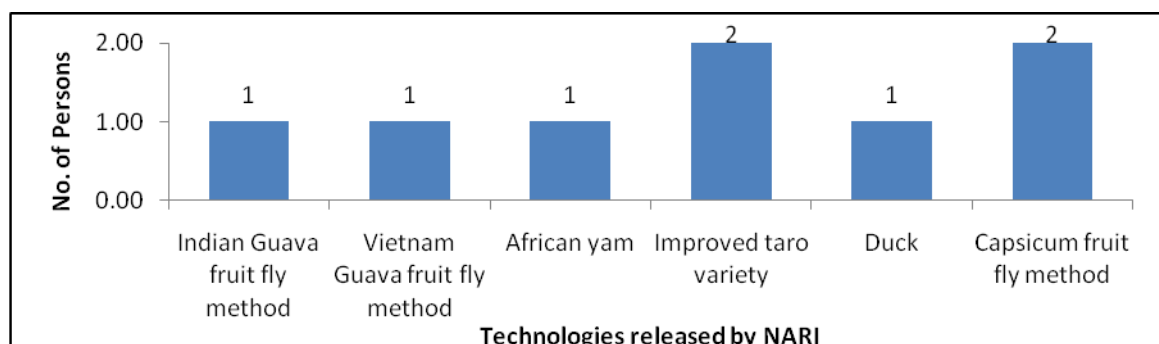


Figure 2. Number of women participated in the different technologies produced by NARI.

Although the women interviewed indicated they had seen an improvement in farm production and income, they lack knowledge and skills to do book keeping and to effectively manage their farm (Table 2). The result is that, they keep little or no data or records on farm operations.

4.4. Their training Needs

We wanted to find out if the women had other trainings needs and asked them to indicate so.

Table 2. Further training needs identified by the women

Areas Training Needed on	No. of Women Indicating this	Proportion of Women Ranking this as an Important Training Need (%) N=19
Access to Credit	19	16
Farm Business Management	18	53
Book Keeping	18	47
Savings	17	28
Soil Fertility Management	15	22

From the results it appears that the women interviewed needed training in a number of areas, especially the business aspect of farming. Eighteen (out of 19) women interviewed indicated they needed training on farm business management and book keeping with 53% and 47% respectively of the women ranking these areas as important training needs compared to the other needs identified. Seventeen women indicated they wanted training on how to save money but only 28% ranked this as an important training need. All the women interviewed wanted training on how to access credit but 74% of the women did not think it was an important training need compared to other areas identified.

So priority future training can be targeted at farm business management and book keeping.

4.5. Constraints to implementation of research technologies and information

Some women are currently not using the research technology and information they had acquired earlier. The reasons given for this is presented in the table below.

Table 3. Constraints to implementation of research technologies and information

Constraints	No. of Women Indicating this	Average Ranking of Constraints by the Women
Lack of funds	3	Important
Lack of access to market	3	Important
Poor market price	3	Moderately Important
Lack of tools	2	Not Important
Lack of credit facilities	2	Moderately Important

The constraints ranked as important by the women are lack of funds (farm or household income that can be used on farming) and lack of access to market. Poor market price and lack of credit facilities were also important constraints to implementation of research technologies and information. These constraints had also been identified in other studies (Philpott et al. 2004a; Philpott et al. 2004b; Kolopen et.al. 2006).

The constraints indicated by the women raise important issues for technology adoption and impact. If farmers are constrained in implementation of research outputs, impact on farm level will be low (except if they are producing for subsistence use), unless these issues are adequately addressed. There is need for innovative ways to deal with these issues at the same time when research outputs are delivered to farmers.

5. Results on Research Technologies and Information from NARI

To determine the effectiveness of research delivery to farmers, the women were asked where the trainings and technologies released by NARI took place and the contents of the trainings. This is discussed in the next section.

5.1. Approach of delivery and Access by farmers

Over the last 2-3 years, NARI delivered a total of 6 trainings (rice agronomy, peanut agronomy, vegetables nursery, taro agronomy/beetle, potato agronomy and rice and grain food processing) and 4 technologies (Fruit fly control methods for guavas and capsicum, African yam, duck and improved taro variety) to farmers. The women interviewed were asked to indicate where they accessed the trainings and technologies delivered by NARI. Table 4 presents their responses. The results show that women have better access if the training is conducted at the village than at locations far from the village. It was found that 13 (out of 14) women who received trainings, did so in the village. For technologies, it was found that most access was limited to NARI shows and stations.

Table 4. Access to NARI Trainings and Technology Packages

Sites Where training and technology release were conducted	No. of Women Receiving Training	Number of Women Receiving Technologies
DAL Station	0	0
LLG Station	1	1
Morobe Show	0	0
NARI Show	0	2
NARI Station	0	2
Village	13	1

The result shows that NARI had utilized a number of sites to deliver research technologies and trainings. Although the numbers of women listed against most sites may be 2, 1 or zero, no suitable conclusion can be made from this observation on best sites for technology and training delivery because, the findings were applicable only to the women who were interviewed. For instance, a large number of women (and male) farmers attend NARI shows both on-station and off-station every year, who are not listed here. NARI also tries to participate in shows and exhibitions organized by other stakeholders. Nevertheless, researchers may do well to assess the approach they take in delivering research outputs and make appropriate changes or use new approaches if required, to reach more farmers.

To find out whether the approach taken by NARI to deliver the training and technologies were suitable in terms of place, content of information, language used and duration of sessions, the women were asked to indicate their views. The women interviewed indicated they generally were happy with the approach that NARI was using to deliver the trainings and technologies (despite location being a limiting factor to access of training and technologies) but made suggestions for improvement. These are discussed below.

5.2. Suggestions for improvement

To improve delivery of training and technologies to farmers, the women interviewed indicated they want the contents of information brochure as well as the delivery of trainings to be in pidgin and for trainings to be conducted in villages. The women also indicated they want follow-up programs by research and extension officers. They feel that follow-up programs will encourage them and lead to sustainability of their operations.

The process they highlighted to improve delivery of training and technologies include: training and technology content, target group, place/venue, timing and follow-up programs. These are specified below.

5.2.1. Step One: Training/Technology Content

- simple pidgin
- pictures/photos/drawings
- made into videos
- pamphlets/brochures/booklets
- theory part
- practical part
- translator for illiterate

5.2.2. Step Two: Target Group

- Organized Women Network
- Example; work with Papua New Guinea Women in Agriculture (PNGWiA)

5.2.3. Step Three: Place/Venue

- appropriate classroom/building
- village/Local Level Government Station
- more women have access

5.2.4. Step Four: Timing

- more than 1 day
- 1 day theory
- 1 day practical
- yearly training

5.2.5 Step Five: Follow Up Programs

- implementation
- progressing effectively
- provide various technology skills to empower the women's operation
- identify women and link to other programs like "Credit Facilities" which will sustain operations
- proceed to "Advance Training".

The women have identified several important steps that need to be considered to improve delivery of technologies and training to them.

6. Summary

In summary, the main points of this case study are presented with regards to farmers who received the trainings and with research technologies and trainings that were delivered by NARI.

6.1. Farmers who received the research technologies and trainings

- In this case study, 19 women were interviewed. These women were mainly engaged in semi-commercial farming of fruit and vegetables.
- The women identified a number of challenges that impede their farm operations. The major challenges include: difficulty in finding buyers for their farm produce; inadequate transport service resulting in longer waiting time and less time on actual selling; lack of access to funds/credits; and family not providing adequate labour to the farm (Table 1).
- Fourteen (out of 19) women interviewed, participated in trainings conducted by NARI and 71% of them indicated an increase in crop production and farm income as a result of the trainings. They received trainings on rice agronomy, peanut agronomy, vegetables nursery, taro agronomy/beetle, and potato agronomy and rice and grain food processing (Figure 1).
- Eight (out of 19) women interviewed had received research technologies from NARI and 50% of them indicated an increase in farm production and income as a result of the technologies received. The technologies included Fruit fly control methods for guavas and capsicum, African yam, duck and improved taro variety (Figure 2).
- Although there were some improvements in farm operations (increase in production and income) as a result of the research technologies and trainings, the women indicated need for more training especially on farm management and book keeping (Table 2).
- Some women who had received research technologies and information had stopped utilizing them because of some constraints. The most important constraints they indicated are lack of funds and lack of access to markets. Also important are poor market prices and lack of credit facilities (Table 3). This raises important issues for technology adoption and impact. If farmers are constrained in implementation of research outputs, impact on farm level will be low (except if they are producing for subsistence use), unless these issues are adequately addressed. There is need for innovative ways to deal with these issues at the same time, when research outputs are delivered to farmers.

6.2. Research technologies and trainings

- NARI delivered a total of 6 trainings and 4 technologies over the last 2-3 years. The technologies included 3 fruit fly control methods for guavas and capsicum (Figures 1 and 2).
- Women had better access to trainings if these were conducted in villages and technologies were mostly accessed at NARI shows and stations (Table 4).
- The women identified a number of steps required to improve the delivery of research technologies and trainings to them (Section 5.2).

7. Acknowledgement

- Funding for this case study came from the Australia Center for International Agricultural Research (ACIAR), Canberra
- Canberra University provided support through the Australian Institute for Sustainable communities (AISC) on ACIAR project ASEM/2009/042.

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12.3 Appendix 3:

Project Survey 2011

PNG WiAgDF Data Collection Survey Jan 2011

1. Motivation for establishing WiA group?

Registered Groups

- Training to establish markets
- Produce crops to create greater economic income for women
- Let people into vegetable business so they get money and change their livelihood
- Service
- Women farmers lack skills training and financial assistance to motivate them in their farming business activities.
- To be able to farm our land and help ourselves with living conditions
- Training
- To address issues like training, credit scheme, markets, exposure within district, province and nation
- Need skills training and exposure

Non registered groups

- To drink my own coffee and encourage other coffee farmers to drink their own coffee
- Create alternative protein source, training and commercialization of fish production
- Sale orchids and onions, vegetables, find markets within women in agriculture
- Sales of poultry, sales of fish and coffee beans
- Involve our women in Chimbu to go back to the land, toil and cultivate for farming and other agriculture projects that will generate revenue/income to sustain daily needs like school fees, health needs etc –
- Involve our youths in agriculture so they will keep themselves in the projects rather than involving in drugs and alcohol

2. Motivation to join PNG WiAgDF

Registered Groups

- "I am a land user and we want to work together and get rid of gambling and HIV, to address social issues and pay school fees."
- "I have organized church groups and women face so many hard times. So we created the group to help and to give to the church so that God will bless them more."
- The women's group is one to help the church."
- Needed access to markets for our crops, and transport for crops, produce, and recognition as a group working in agriculture.
- Training for different crops suitable for area
- Want to get more knowledge and exposure in the vegetable business
- Service, gain skills and knowledge
- Because we need recognition and awareness nationally and internationally and other assistance through this to help us in our farming business
- The desire to see the fruit of our labour
- Need recognition and awareness
- Need resource centre

Non registered group

- To train PNG members and benefit from other need areas to my group like – assessing markets, needed material, seed capital, further training,
- For training and marketing
- Training, marketing
- To be part of the team, to share skills, knowledge and experience for better sustainability

As an Individual

- Women working in agriculture large scale with little experience
- Want to get more knowledge
- Training, credit
- Needs skills training (hands on experience) that is nationally and internationally
- Be able to supply to business houses that need assistance
- To get training and know more about agriculture
- Exposure and training
- To learn new ideas, to improve my living

Non registered groups- individual

- To learn more about and acquire knowledge and be able to market my produce
- Broaden ideas in aquaculture farming
- To get information for better farming marketing

3. Group arrangements

Aims & objectives of your group

Registered groups

- To encourage our members to work together and learn more about agriculture and to create a profitable agri business

- Improve living standards of village people
- Training, market, transport
- Government service to come through the group
- To train women farmers with skills and innovation in agriculture extension
- To be able to have enough food at home and surplus for sale
- Training, credit, marketing and equipment/transport
- To train women farmers, expose them nationally and internationally

Non registered groups

- Commercial farming, training and extension in aqua culture
- Generate income through source economic development
- Generate income
- Create better lifestyle in the family/society and province as whole.
- Encourage sweat equity for exposure, sustainability micro credit scheme
- To produce consistent supply (we need proper nursery house with iron roof)

3.1 Where/How does you source and manage your group finances?

Registered Groups

- Fund raising through contributions,
- Member ship fees
- Get assistance from FPDA for donor funding and the chair managers the internal funds
- Sales of coffee, vegetables, kau kau
- Own contribution and executives manages
- It is an NGO group so all funds comes from our (the members pocket)
- Selling vegetables
- Sales of yams and money goes to the bank
- From sales of vegetables and contributions of individuals
- From our own pocket – through contributions

Non registered groups

- Just from sale of coffee/food crops and selling of live stock
- Sale substance farming produce (micro) to farm revenue to sustain groups expenses
- Sales of vegetables at local market and sometime shipping to PoM
- Seek financial assistance form district offices doing own fund raising
- From crops we produce

3.2 Who makes decisions in your group?

- We all do (everyone) at meetings
- All the members
- Family members
- Executive
- Myself

Non Registered Groups

- The family (me and my husband)
- Executive- management
- Ditto
- Chair person and committee
- Myself

3.3 How are decisions reported to members?

Registered Groups

- Meetings - - most common answer
- In house man gathering (nightly)
- When we tell the children

Non Registered Groups

- Meeting – brief members on executive discussions

3.4 Does your group communicate with other groups? If so, how?

Registered Groups

- Through organized casual meetings and church groups, mobile phones, newsletter and news paper.
- Mobile phone, direct contact, face to face
- By sharing ideas, meeting flower demands
- Through phone, fax, media, radio and in person
- Through phone and meeting in person
- Mobile and verbal
- Mobile, verbal and letters
- Meetings, we talk to each other by word and radio
- Call a meeting with a mobile phone
- My meeting once a week

NRG Registered Groups

- Phone, meetings
- Letters and mobile phone
- Phone, radio, verbally, talking, public notice boards
- Radio, phone, letters, by person,
- Radio, phone, relay by letters

4. What do you expect from PNGWiADF

As a group

- Office is a skeleton, more effort with a full office, person in office, Maria is so tired up she can't reach out
- Training to improve our production, funds to increase production
- Group exposure
- Training, credit
- We want you to assist us to put up a resource centre
- Skills training
- Resource centre
- Credit facilities, training, marketing, transport.
- Micro credit and resource centre
- Assistance for resource centre
- More training – resource centre

Non Registered Groups

- For market creation, funding assistance, further training etc
- Training, finding sustainable market
- Marketing opportunities for marketing the produce
- Assistance like funding
- Technical service = processing crops

5. What do you expect from PNG WiA As an Individual?

- Training and market identification
- Individual exposure
- Market, transport, credit facilities
- Training credits
- Need skills training aboard
- To take some skills back to my family
- Resource centre
- Credit facilities, training, marketing, transport
- Micro credit, tractor service
- Resource Centre
- More training/resource centre

Non Registered Groups

- Help market my produce and if possible help me set up a roasting facility (find some funding to do this)
- For my knowledge in aqua culture
- Training, capacity building
- Exposure to marketing/trade
- More training, resource centre, house bung

6. SWOT: Regarding PNG WiADF, what do you see are its:

Strengths

- ✓ Very strong partnerships at the high level with institutions: NARI, FPDA, ACIAR, DAL – Secretary, AWiA, CIMC and others
- ✓ Having access to Senior and staff at NARI to do the communication, media and publicity for PNGWiA
- ✓ “PNGWiAg is giving us confidence and strength to address our issues” Shirley
- ✓ Network, access to agricultural research, encouraging women
- ✓ Sourcing funds and partnerships
- ✓ Networking/Voice
- ✓ National group, networking
- ✓ It's an organized group and its international
- ✓ Voice link with other organizations
- ✓ Links with NARI, FPDA etc
- ✓ Team work
- ✓ National group, networking
- ✓ Well organized
- ✓ Networking
- ✓ Institutional groups
- ✓ Communication with other groups
- ✓ Sharing and learning about new ideas from other farmers
- ✓ Link to AWiA – very strong partnership

Non Registered Groups

- ✓ Good networking with others
- ✓ Mobilization, arable farm land, influence in government

Weaknesses

- People have heard about the name WiA, but they don't understand what it does
- No funding, therefore no staff, Maria is only volunteering, need funding to employ staff
- Needing money
- Communication
- Need more funding
- Link with other organizations and communication
- Not enough awareness
- Lack of training in the field
- Lack recognition by other institutions
- Linking women to training opportunities such as the ACIAR project
- Funding – getting support for funding
- How do people find out about PNGWiA
- No proper data base
- Who are the office bearers?
- No office bearers all being in the same place at the same time

Non Registered Groups

- Needs money
- Vision statement to be redirected to better use of PNG WiA
- Communication, training, getting information out to others

- Opportunities for members to meet at the local level
- Literacy
- If WIA is not relevant and benefits are not recognized it will lose members- and there will be discouraging comments from others in the village

Opportunities

- Market access, income generation, gender recognition
- Lots of opportunities for exchange between groups
- Meet new people to sell things to
- Take members to the highlands so they can learn to plant, grow and market
- Training and marketing
- LNG big opportunity to grow food
- Networking with other organizations
- The group works closely with other organizations
- Financial assistance can be given when we do proposals
- Training, credit, marketing, transport
- To work with other donors
- For PNG WIA to work in partnership with NARI for training
- For FPDA women staff to link with NARI staff and partnership with WIA on village visits
- Giving women courage to go forward
- An email group for members
- Awards for women in agriculture – link with FPDA
- Sponsorship from big groups – Digicel, LNG, Exxon Mobil,
- Corporate members
- Leadership training – marketing and communication and being a community leader
- Training for groups at the AGM on 16th of September – for
 - Radio plays – talk back
 - Coffee processing
 - Building a resource centre
 - Silage making
 - Water melon growing
 - How to fund, build and use a resource centre
- PIP - public investment program
 - Depot for women in agriculture
 - Resource depot/depot

Non Registered Groups

- To be able to progress to help others
- Market creation, funding assistance, training and exposure
- Work with other donors
- Assistance such as funding, sharing of skills and knowledge, experience, market exposure

- Ideas for fund raising
 - Corporate dinner

- Walkathon
- Depot
- Training

Threats

- ❖ Some groups don't work together
- ❖ Uncertainty whether assistance can be given or not
- ❖ With the women leaders disassociating
- ❖ So much relies on Maria, if anything happens to her, what will happen to the organisation
- ❖ Unsteady relationship with government, particularly DAL
- ❖ Lack of funding, lack of training, lack of interest of members
- ❖ Tapping into the needs of ordinary women
- ❖ Getting the exposure of PNG women to the mothers
- ❖ Too many opportunities – need to be sure that it will be of benefit to members
- ❖ That benefits need to come back to 'the house' and family or members will not rejoin

Non Registered Groups

- ❖ Some women's groups not working together
- ❖ Division, poor advice and non exposure

7. List improvement/benefit observed or gained so far, as a result of being a member (individual/group) of PNGWiADF

- The strategic planning meeting/round table was very useful for members
- Networking opportunities
- Meeting Emily Flowers and gaining access to the High Comm. to sell flowers
- Linkages with FPDA and NARI
- Meeting all the other women
- Opportunities to network nationally and internationally
- Attend international training
- Being part of a roster to help other members in our group with their garden
- Learning to use a computer, email and Skype
- Training and exposure to groups in other provinces
- Learn more skills, meeting other women in other provinces
- Exposure trips to NARI and Lae
- African yam garden now I am making African yam business and training
- Benefits of travelling overseas and knowing when to harvest and sell vegetables
- Training, tours to other places and exposure
- Eye opener by travelling to other provinces
- Travel out of the province, exposure to what is going on outside, learn different ideas to others,
- Community organization, leadership identification and training
- Network and organize themselves

- Working through DAL extension officers (Female) to learn more, be more organized
- Community gets to select their own leaders
- Confidence to do things
- I am very proud to be a member of PNGWiA
- Being secure when we go to strange places – knowing other women farmers
- Grow with confidence
- Opportunity to learn
- Being able to be part of this project “being here today”
- Now we are recognized as farmers
- We can get support from the MP for our group
- Letter of support from Maria for grants. Very good
- Able to travel, first time a group of Central women have been out of the province to attend the round table. Got ideas about the resource centre and went back to village and build a centre, then shared this information with women in another village who they had met at the round table.
Got connected to NARI and other programs to get seeds
- Roslyn bought live stock training from LAE and used PNG WiA groups to deliver the training. It was very successful.
- Via PNG WiA made connection with China volunteer via James Cook University who is now living and working in the village

8. WHAT DO YOU WANT PNG WiAg TO DO?

- Support US
- Funding support
- Information about land preparation
- Co-coordinating arrangements for marketing
- Project funding
- Build capacity in the districts
- Secretariat to look after communication
- Need to see results “we have said all this before. We cannot keep wasting our time telling you these things. NARI and WiA need to do things.
- An arrangement that membership gives discount
- Need to network with groups that have money for support because have similar issues: e.g. Women in mining -PNG chamber of Commerce, Mining.
- Cool room facility and marketing
- Plants and markets to sell plants
- Land acquisition for members because land is owned by men
- Have a structure that works through the provinces
- Training on business skills: how to spend money, how to make money, how invest money, how to save money.
- A small loan scheme to lend money to groups and use the interest for the running of PNGWiAg
- Training on how to manage ducks
- Learn more about downstream processing

- Work more with NARI to deliver training to many more women
- Some help
- Training about downstream processing of coffee
- To get together with other women
- Market her coffee to other women in agriculture and encourage women to drink own coffee.
- Use network to market coffee, distribute information about our product through NARI, at field days
- Interested in being part of the Show at Maria's village on the 16th of September, would be prepared to run a workshop
- Links to donor agencies
- Training
 - Office procedures
 - How to run a resource centre
 - How to run your own small business/duck business
 - Some women need very basic numeracy skills
 - Tractor driver & tractor maintenance training/small engine
 - Training to use rotary hoe

9. How important it is to have a national peak women's organisation to provide a voice for agriculture -

Everyone says a strong YES

10. How effective do they think PNGWiAgDF has been?

95% just effective,

11. What can PNGWiAg do to become more effective?

- Have forms for members to register/join PNGWiA, and facilities to accept payment at meetings
- Employ staff
- Fund raise
- Ability to pay subscriptions/registrations month
- Encourage local groups to fundraise for PNGWiA
- Update the data base regularly
- WiA to start conversations with partners and to go with suggestions on how the partners could really help /assist PNG WiA and women farmers
- Put in proposals for funding – PNG incentive fund, ARDSF,
- Create more training opportunities, channels for communication for people who will run training,
- Do more awareness and do more partnership,
- Organise exchange trips and partnerships, visits, networks and partnerships
- Networking among groups of the organisation,
- Provide more training to women extension officers
- Organise the group and make up NGO groups so the government can recognize us

- Exchange programs and visits
- Organise field trips to other groups
- Network, partnership, training vegetable farms
- Have network in place, provide training for farmers and extension officers
- Find markets, show, field days, more training,
- Executive Officer
- Regional meetings across the country – for example at March Girls for a Central Province meeting
- An email group
- Regional office
- Talk back radio with local women
- Radio play
- Column in National newspaper
- NBC has a program “Man on the land” could include women’s news
- Use provincial radio
- Regular updates on what is happening
- Radio training for PNGWiA leaders

Non registered Groups

- Training more service providers for extension, field days shows, field day training by groups and ward councilors, clan to clan
- Provide networking with women in other province/state and countries,
- Help with financing our little needs
- Sponsorship from Digicel for using mobile phones

IDEAS FOR COMMUNICATION

Use:

- ✓ Post
- ✓ Internet
- ✓ Mobile
- ✓ Newspaper “I read about PNGWiA in the paper.”
- ✓ Flyer
- ✓ Monthly newsletters to members
- ✓ Internet – page
- ✓ Radio
- ✓ Meetings
- ✓ Meetings in villages
- ✓ Shows,
- ✓ PNG WiA hosted field days
- ✓ Exchange trips
- ✓ Training days
- ✓ Depot
- ✓ Market
- ✓ Sending of credit by mobile phone.

13. Other comments

- Api culture training and cassava processing,
- Training with African yam planting and marketing
- PNG WiA is a good idea to make sure the women feel part of the agriculture sector
- Be a successful example to other women in the area
- Set up a depot and link to FPDA

Non Registered Groups

- "I can help in teaching processing of good quality coffee
- "Consider capacity building, assist resource centers provide more technical personal
- "We believe PNGWiA is the way forward for PNG women. Now we can really talk agriculture meaningfully. Logistical support, coordinated partnership and mobilization of produce are paramount to participate in meaningful development in our families, society and PNG as a whole. We dislike the government should stop Oki Teki mining and gas companies for importing what can be produced locally. However we look towards PNGWiA for our development needs and exposure and appreciate being a member of PNGWiA.
- "Provide credit scheme, more training, more networking and way forward for food processing.
- "PNGWiA is a powerful organization; I personally believe it is the way forward for PNG women to participate more effectively in the world food day production industry. I dislike mining companies, oil and gas, that import food, that can be redirected to PNG WiA so that money can remain in our shores. However I think PNGWiA has yet to improve in our local food production by distribution of its crop management to coordinate on larger scale with support from NARI, FPDA and other entities.

"I believe PNGWiA to be a 100% organisation."

Compiled by Maria Linibi and Cathy McGowan May 2011