THE FRUIT OF HER LABOR

PROMOTING GENDER-EQUITABLE AGRIBUSINESS IN PAPUA NEW GUINEA

FRESH PRODUCE SECTOR

December 2014
I. BACKGROUND AND CONTEXT

The World Bank Group recently completed a study of gender issues in three agribusiness supply chains in Papua New Guinea (PNG), including fresh produce. It found women to be key to ensuring quality in agriculture. Therefore, it recommends that if PNG wants to bring better quality fresh produce to market, it needs to focus on the contribution of women; improving their skills and capacities and giving women a greater share of the benefits.

Agriculture accounts for approximately one-third of GDP, and the sector is dominated by smallholders.

The fresh produce industry has great potential in PNG. Market demand for fresh produce is likely to remain high in years to come, due largely to resource-led development, increased urbanization and a general rise in standards of living.

Unlike coffee and cocoa, where the product is destined for export and the market is limited to a small number of exporters, markets for fresh produce in PNG are very diverse, and the supply chains are extremely varied.

The key market segments for fresh produce include supermarkets, institutions, kai bars, distributors, and urban markets, all of which require different product attributes from their suppliers in terms of quality, quantity, shelf-life, and reliability of supply.

This document summarizes the main findings and recommendations relating to the fresh produce sector from the joint World Bank-IFC report The Fruit of Her Labor: Promoting Gender-Equitable Agribusiness in Papua New Guinea.

The report and sector summaries were prepared by consultants C. Mark Blackden (mblackden@comcast.net) and Maxie Makambo Dominic (makambo020368@gmail.com), under the overall guidance of Anuja Utz (autz@worldbank.org) and Amy Luinstra (aluinstra@ifc.org).

For the full report visit www.worldbank.org/png.
II. SUMMARY OF PRINCIPAL FINDINGS

The main findings of the analysis are:

» Women are key to quality. Women play a central role in time-critical and quality-relevant tasks in production, harvesting, product enhancement and transport.

» Labor dynamics affect outcomes in the sector. Much labor is allocated for “social” purposes and labor shortages exist, especially at critical production/processing times. Labor constraints are especially apparent when the gender division of labor is explicitly taken into account.

» Critical services are lacking. Provision of services, including inputs, extension, training and finance is limited and poorly targeted. Gender-specific tasks and needs are insufficiently integrated into the design and delivery of extension and training services.

III. KEY ISSUES IN THE FRESH PRODUCE SECTOR

A) Quality

Women dominate production and processing activities. Quality is largely driven by product enhancement (washing, sorting, grading, trimming, packing), which begins on the farm once the produce is harvested. When and how these tasks are undertaken has a bearing on the quality of the fresh produce that reaches the market, and on the extent of product loss and waste (losses have been reported at between 30-50 percent for sweet potato, and 20 percent for fruit and vegetables in Port Moresby).

Several factors contribute to product loss and diminished quality. These include:

(a) women’s lack of knowledge of post-harvest management practices;
(b) inability to access, or to afford, recommended appropriate packaging materials for various crops;
(c) lack of cool storage facilities at farms, markets, depots, and ports;
(d) the use of inappropriate types of transport (including public motor vehicles—PMVs) on poor roads; and
weak communications and poor alignment of key actors along the supply chain.

Three inter-related issues affect women’s ability to contribute to improving the quality of fresh produce. These are:

» **Incentives:** Women have more control over income in the fresh produce sector than in cocoa or coffee. As one study notes: “though average returns to labor were found to be higher for coffee than in food production, women persevered with the heavy and less rewarding work of planting, harvesting, and carrying food crops because the incentives were better. They exercised more personal control over production, could intentionally produce a surplus over subsistence requirements for sale, and were able to control and spend most of cash earned from selling food crops” (World Bank n.d.). However, this essentially applies only in local markets close to the homestead; when transport of crops to more distant markets (Lae, Port Moresby) is required men become involved and women, in most instances, lose control over the resulting income.

» **Knowledge and Information:** Women’s access to the knowledge and skills required to carry out their tasks is extremely limited, as gaps in education, literacy, skills, and participation in extension and training activities persist.

» **Socio-Cultural Dynamics:** There are important gender-specific dynamics at work in PNG society that differentially affect men’s and women’s capacity to exercise economic agency. PNG society is largely patriarchal and, even in matrilineal regions, men are seen as household heads and primary decision-makers.

**B) Labor**

Labor issues have far-reaching implications for the performance of the sector. Of particular importance are gender differences in labor allocation and in rewards to labor, and the ways in which social and economic factors intersect in determining labor use.

» **Fresh produce farming in PNG is largely seen as an extension of subsistence activities.** The economic potential of the fresh produce sectors in PNG is not perceived by farmers, so much so that the feasibility study for a Port Moresby wholesale market begins with a question: “Yu Tokim Mi Long Planim Kai Kai Na Maket We”? -- You ask me to plant vegetables, but where is the market? (Bonney et al. 2012). Decisions about what to cultivate, and what labor to allocate to it, are made largely without reference to market drivers, and linkages with markets are weak. If farmers are to become more business-focused there need to be the business opportunities and market linkages to support the change.

» **Much labor is allocated for social purposes.** Social factors and obligations, including church and community work, are at least as important as economic ones in determining labor use. Consequently, relationships along the supply chain can be seen to have at least as much to do with clan and culture as with product characteristics and market dynamics.

<table>
<thead>
<tr>
<th>TABLE: LABOR ALLOCATION BY TASK AND SEX, 1993 (HOURS/WORKER/DAY)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task</strong></td>
</tr>
<tr>
<td>Food</td>
</tr>
<tr>
<td>Coffee</td>
</tr>
<tr>
<td>Household</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>


» **Farmers experience labor shortages.** Households do not have enough labor to do all the things they need to do, or to do the things at the right time and in the right way. Data from the 1990s indicate that the division of labor is unequal: women work nearly 3.5 times as much as men, especially when household work is included, on which women spend 6.5 times as much time as men do. Women allocate more than 3.5 times as much labor to food production as men do (Table). Smallholder farmers are very diversified,
producing a range of fresh produce/food crops, alongside their cash crops. Diversification makes sense, in that it is a risk management strategy, but it is also possible that some smallholder farmers are trying to do too much with the limited labor they have, further contributing to labor shortages, especially at peak seasonal times for particular crops.

The women are forever busy, always busy. Women do gardening to provide food for the immediate family’s needs, women attend to commercial crops, and livestock, and other household chores such as cleaning clothes, cooking food, and feeding the children. The only time women rest is when they are asleep.

—Male Tomato Farmer, Mt. Hagen.

C) Services

In addition to the limited reach, and focus, of extension services, other key services are often not available to smallholders. Input supply is weak and inconsistent. The inability of smallholder farmers to access quality seeds on a regular basis is a major problem. There is limited access to financial services, and important gender-specific barriers persist, as women tend not to own the land, fixed assets, or other resources that are needed to meet collateral requirements.

D) Lack of mobility

Being more restricted to the homestead and not having access to transport services means that women are largely excluded from key downstream activities along the supply chain. In fresh produce, marketing of “hardy” crops (cabbage, sweet potato, carrots, English potato) requires transport to Lae and Port Moresby; transport is provided by men, who then, the women say, pocket the money. This, alongside heavy workloads, persistent insecurity, and cultural constraints, contributes to women being confined to, and largely only able to benefit from, shorter supply chains in the fresh produce sector, where produce is sold in local markets close to home.

Beyond these sector issues, broader, systemic issues persist in PNG and affect sector performance. In addition to the well-documented issues of poor or non-existent infrastructure, especially transport and communications, PNG suffers from pervasive insecurity and violence, including domestic violence, which disproportionately affect women and their ability to operate as economic agents in the sector. Lack of information, knowledge, communications and services (including education and health) more generally, is a further systemic barrier to gender-equitable agribusiness.
IV. PRINCIPAL RECOMMENDATIONS FOR STAKEHOLDERS IN THE SECTOR

All stakeholders have a role to play in improving outcomes for women in the sector. Key actions identified include:

» **Incentives:** Improve the capacity of women to benefit directly from income earned in the sector by facilitating direct payment systems, by aggregating production through cooperatives, and by supporting training and sensitization efforts (including through personal viability—PV—training) aimed at shifting cultural norms and mind-sets relating to women’s economic contribution.

» **Knowledge:** Improve quality through better training in production and processing techniques. Re-focus extension and training messages toward the quality-enhancing tasks for which women are responsible. Adopt a specific target (30-40 percent) for female participation. Consider establishing quality protocols at each step of the supply chain, outlining the critical steps (and who does them) involved in maximizing quality. Ensure that these protocols are integrated into extension and training packages. Analyze labor dynamics in the sector, through commissioning time use surveys and research on the gender division of labor for key tasks, including domestic work and returns to labor.

» **Inputs:** Improve the supply of agricultural inputs (notably seeds, fertilizer, pesticides) in a manner that is consistent and incorporates the development of new varieties of key products. Establish seed production, storage, and distribution facilities in the sector in key provincial and regional centers. Put in place measures to enable the National Agricultural Research Institute (NARI) and the Fresh Produce Development Agency (FPDA) to work collaboratively with the private sector in both identifying and meeting the needs of farmers for seeds and inputs that are appropriate and accessible. Explore agribusiness dealer approaches, which would bring retail outlets for inputs closer to farmers.

» **Infrastructure:** Support establishment of cool storage facilities at key provincial and central locations, which would be managed by a private sector company. This company would provide key support services to farmers, and would be responsible for managing the cool storage facilities and managing all transportation and distribution requirements, thus enabling farmers to sell their produce at the farm gate. This approach would have the additional advantage of considerably shortening the supply chain, from the farmer’s perspective, thus enabling women farmers to reap direct benefits from their labor.

References

Bonney Laurie, Mark Worinu, Pauline Muscat, 2012. *Yu Tokim Mi Long Planim Kaikai Na Maket We? A feasibility Study for a New Wholesale Fresh Produce Market in Port Moresby, New Zealand Aid Programme, Ministry of Foreign Affairs and Trade, New Zealand*.

