All ACP Agriculture Commodities Program (AAACP)
of the FAO of the United Nations

Farmer organisations and the market in Melanesia

A series of case studies making up part of the FAO project under the EU AAACP program

March 2012

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The South Pacific development assistance consultancy, TerraCircle, works with local NGOs and agencies, governments and intergovernmental organisations in the region.

www.terracircle.org.au

Abbreviations

AAACP	All ACP agriculture Commodities program
ACIAR	Australian Centre for International Agriculture Research
ACP	Africa, Caribbean, Pacific
CBO	Community Based Organisation
CePACT	Centre for Pacific Crops and Trees (part of SPC)
EU	European Union
FO	Farmers Organisation
FAO	Food and Agriculture of the UN
IPGRI	International Plant Genetic Resource Institute
IITC	Ipa Integrated Training Centre
K	Kina, the PNG unity of currency
KGA	Kastom Gaden Association
MFFN	Melanesia Farmer First Network
NGO	Non Government Organisation
PAPGREN	Pacific Agriculture Plant Genetic Resource Exchange Network
PEDC	Paruparu Education Development Centre
SIG	Solomon Islands Government
SPC	Secretariat of the Pacific Community
STABEX	Stabilisation of Export Earnings
T	Tonne, the metric unit of weight
TCBTC	Turusuala Community Based Training Centre.

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1. Summary–lessons learned

Five case studies are included here as examples of attempts to link small farmers with markets in Solomon Islands and Papua New Guinea. The case studies explore the business models used and the lessons learned. They are drawn from among the loose network of the organizations that are members of the Melanesia Farmer First Network.

The case studies are:

- Cardamom marketing from Bougainville
- seed provision for farmers by the Solomon Islands Planting Material Network
- a business model for extension services for food security by Kastom Gaden Association
- Farmer Fresh—an organic produce home delivery service in Honiara
- Jedom—a business focused on value adding of fruit and nut products sourced from small holder farmers

Some common themes emerge from the case studies

Value adding of produce into less perishable products is often considered an option for linking very isolated farmers to markets.

However the same challenges which lead to these farmers being isolated from markets often conspire against attempts to carry out effective value adding. For example the lack of access to modern energy across most of Melanesia apart from urban centres.

The Jedom case study demonstrates how **centralisation of processing operations**, despite attempts to decentralise, often remains the only viable option, in this case where reliable energy and easy access to customers for delivery of high quality products is required. Similarly farmer services that depend to any great extent on basic government services like postal connections, communications, energy and transport infrastructure can be serious challenges to effective business models in much of Melanesia.

Contract supplying arrangements are seen as of potential benefit to small farmers. However in Melanesia where contracts are often arranged between related parties, ie 'wantoks', there are often unwritten social and cultural obligations that can lead to failure of the expected strengths in contract supply arrangements.

Produce is often (or becomes over time) inferior, farmers exert strong social pressure to cover additional and often unexpected costs that they would have had to cover themselves if selling in the main produce markets and supply can be irregular.

By contrast, **large produce markets in Melanesia cities and towns** provide a reliable means of sourcing produce at the best current prices and are more free from these wantok obligations. Farmer Fresh attempted various types of contract arrangements with member farmers but often lost money in poor quality supplies.

In the end both Farmer Fresh and Jedom had to prioritise trying to get their own business in order and at a viable level before they could extend out to sourcing produce from remote farmers.

The main produce markets were accessible and often the only option for start up business. Over time Jedom was able to expand its supplier network to some more remote farmers, while Farmer Fresh was never able to revive its wider farmer supply network as its volume of supply did not grow enough and it became stuck in a small scale, market sourced produce operation.

Social networks and obligations can also work in favour of farmer groups and business involved in marketing. The Jedom and Bougainville examples both tap into clan and extended family structures to develop trusting relationships and in the provision of 'cheap' labour for essential parts of the value chain where extended family members 'invest' in assisting each other.

In the Bougainville case a trader embedded in the local community was able to forge a trusting relationship where an outsider did not succeed and family labour was critical moving produce from remote mountain locations to the cardamom drier and later to the road and port – again filling the gap for poor local infrastructure that had caused their remoteness.

In the **Jedom** case family based labour helps to make a processing enterprise viable where more formal structures may not have.

There are often significant opportunities to tap into niche domestic markets such as supply to mining companies or to expatriates with higher incomes.

In the case of **high value added products** such as the muesli, chips and dried fruits of **Jedom** this can work well but in the case of bulk fresh produce marketing such as that done by **Farmer Fresh** the economies of scale are not always there and it be more difficult to find sustainable business models with low margin, bulk quantity business models.

For the most remote farmers who do want to reach export markets there only chance may be to link with existing enterprises that have established export markets—such as Pacific Spices and its links with IITC. Attempts to go straight from remote to export markets are not likely to succeed.

Many efforts at linking small farmers markets are founded in multiple ideologies—eg in promoting fairer trade, helping the poorest or other development and social agendas etc. These principles are often, but not always in conflict with making in a profit, particularly for small business.

There needs to be a careful balance and in the end decisions may have to be made to build the business model and its own financial viability first before extending into trying to provide outlets for small farmers.

A lot of time (and often resources and skill) are needed to build effective relationships with remote farmers and farmer groups.

For many enterprises that need to make a profit immediately or that have little working capital to invest, they find investing in these relationships difficult.

Intermediaries, whether they be donor funded NGOs or more locally embedded farmer organisations, have an important role to play in organising and preparing farmers in isolated areas to interact with the private sector or other farmer organisation that provide market opportunities.

There is a need to have plenty of time and resources, to expect initial failure and to facilitate dialogue for different players on the chain to better understand each other.

Intermediaries may have to be prepared to take on the risks involved in order to broker these relationships. This was the case in **Bougainville** where external support provided the buffer to bridge the gaps in the value chain and allow new business models to emerge.

Where donor funded or service provider organizations do enter into an intermediary role in linking small farmers with markets there is a need to have a clear exit strategy.

In the case of **Farmer Fresh** and the initial experiences in **Bougainville** this was not done and the result was dependency on unsustainable structures that were not the most effective ways of opening up new market opportunities for small farmers and ultimately failed when donor support ended.

Farmer organisations and extension providers are often not particularly good at running a business and have other strengths that they may be better focusing on – like training, facilitation, research etc.

Having too many bosses or unclear decision making processes can make business models difficult to implement within larger farmer organizations or NGOs.

The **Planting Material Network** (PMN) was hosted by the larger **Kastom Gaden Association** (KGA) and had no control over the income earned from seed sales and member fees and so there was little motivation or incentive to link income with expenses and the level, quality and scope of services provided.

Where ever possible, **improving financial incentives along the value chain** is a good approach even in the case of service delivery for small farmers. This was an important lesson for PMN as a service provider for food security trying to find more effective ways to manage seed production and then ensuring that quality seed reached its members.

Common good services—such as enhancing crop diversity for food security—may always depend on external funding as there is often not a business model to support them.

Important services for the poorest and most remote farmers may have to depend on donor or other external funding as they are in the common good. This was the case in many of the services provided by KGA and also PMN.

While business models can be explored, it may be that the more important transition is to assist these regions and farmers to lift themselves out of poverty and isolation through an improved enabling environment for development eg building better or new roads, rather than insisting on finding models of private sector service delivery. The private sector show little interest in operating in remote rural areas due to the lack of infrastructure and the very reason that make these regions poor.

Encouraging farmers to be more **self-reliant** is effective.

Not all traders succeed. Working with existing traders on the value chain and helping to better link them to more remote farmers through an intermediary can be successful such as in the case of cardomom marketing in Bougainville. Building trust on the value chain is not easy and is made more complicated with complex social and cultural systems in Melanesia.

Time is important and being there for the long term.

Big top down marketing plans by government or farmer organisation rarely work

Networking works—linking different kinds of organisation—both within a chain—but also to learn from each other experience in different locations is a success. The bougainville farmers learned from the experienced in Vanuatu through the facilitation of a sharing network of farmer organisations.

In **larger learner organisation** there is a need for ownership at all levels. Attempts to change and build new business models within parts of organizations without wider consultation can meet blockages.

For service provider organizations such as KGA there is a business model in being an effective implement or of grants and providing effective services using grants.

By accepting this business model the organisation can concentrate better on its core service, rather than get diverted by small scale business ventures that are unlikely to be able to sustain even a small part of the organizations budget needed for service delivery.

In general trying to run enterprises to earn income to provide other services for farmers is unlikely to succeed.

I hope you enjoy reading the case studies contained within this publication. There is much more to learn and many more experiences to share so this is just the beginning.

2. Cardamom marketing in Bougainville

Farmer organisations and the market in Melanesia

There is potential to develop production and marketing of cardamom in Bougainville but to do this successfully implies the overcoming of infrastructure and cultural barriers.

Introduction

Cardamom Marketing in Bougainville is one of a series of case studies making up part of the FAO project under the EU AAACP program.

The objective of the program is to improve the livelihoods of producers in commodity-dependent ACP countries, with the focus of the FAO component being to enhance the capacity of farmers organisations to participate in rapidly changing markets while providing quality services to their members.

Activities in the Pacific region were coordinated by the Melanesia Farmers First Network (MFFN). When Oxfam funding to the MFFN ended the organization was unable to complete some of the work and support activities envisaged in the FAO partnership. The project spanned October 2008 to the end of 2010.

This series of five Melanesian case studies has been produced by TerraCircle Inc to document the experience of the project in supporting farmer organisations and their market links to small farmers. The studies were developed through field work, interviews and documentation of the authors' own experiences in working with farmer organisations over recent years.

The case studies are detailed in sections:

a. farmers' organization business model
b. critical success factors
c. results of the intervention
d. the upgraded business model
e. future plans
f. lessons learned.

The MFFN

The Melanesian Farmer First Network (MFFN) is a regional association of development assistance organisations engaged in agricultural training, training of trainers, community health, training for rural livelihoods and associated areas of community development.

The network shares information between member organizations and engages in capacity building to strengthen members and to scale-up successes.

a. Farmers organisation business model

The 10-year civil war that ravaged the island of Bougainville at the eastern extremity of Papua New Guinea—and which ended in the late 1990's—destroyed much infrastructure and reduced the economy to one of self-reliance and survival. Determined rebels, and the majority of the population that supported them—survived in remote mountain outposts and here they forged a new vision for their own form of development that they are now attempting to implement under the autonomous government granted in the peace process.

Bruno Idioai, the founder of the agriculture program of the Paruparu Education Development Centre (PEDC), was one of many visionaries who led community-based programs, in his case to improve agriculture food security and restore the natural environment from which people drew resources. These programs continue today and have transformed agriculture in a remote mountain area of central Bougainville and incorporate sustainable practices and reforestation.

In the post conflict period PEDC (later renamed IITC—Ipa Integrated Agriculture Training Centre when the agricultural component branched off on its own) needed to respond to the needs of farmers of the Avaipa region of Central Bougainville who wanted to re-engage with the cash economy. The advantages of isolation during war became disadvantages again as the formal cash economy returned to Bougainville and those in isolated areas had few accessible choices for income or markets.

In 2000, IITC started an 'alternative cash crops' program largely focused on cardamom but that included pepper, chilli, ginger and tumeric. Farmers were encouraged to plant crops, particularly cardamom, which grew only in the highland areas above 600 metres altitude, giving them a geographic and climatic advantage over coastal areas. A home-grown, volunteer-led extension program operated and at its peak over 200 farmers had 25,000 cardamom plants that were beginning to produce well by 2003. A number of driers were constructed and a quality product produced.

Limited outside assistance was provided:

- technical training for the lead farmers at the National Agriculture Research Institute (NARI) arranged by the Bougainville Department of Agriculture (DAL)
- a series of small grants from the Melanesia Farmer First Network (MFFN) to upgrade driers and conduct training for volunteer spice officers
- a visit to Vanuatu by two lead farmers to see the spice network of company Venui Vanilla and the Farm Support Association, a member of MFFN.

The plan was for direct exports from Bougainville to world market. There was suspicion over other traders in PNG and indeed any kind of middleman. This was a traditional Melanesian suspicion that was strongly reinforced by the war. Most felt that Bougainville should go it alone and would benefit from direct connection to the global market.

However, IITC had no experience in accessing export markets and there were unrealistic expectations drawn from internet-sourced world market prices in developed countries. Many of the marketing ideas of IITC were for centralised, elaborate marketing board types of structures that were based around expectations of promised government support that was unlikely to be delivered or to be sustainable if it was.

Over a period of years, MFFN assisted IITC to come to a more value chain-based view of the situation and consider the best ways to develop the market chain to make it sustainable. MFFN helped IITC to identify potential local buyers or traders and then helped them focus on supplying a well-established spice buyer in the neighbouring island of Rabaul. This was Pacific Spices.

In 2005, an initial sale of one tonne of dried cardamom was sold to Pacific Spices at K1.50 per kilogram. This was a substantial logistical and cash flow challenge given the very poor state of roads, communication and banking services at that time. IITC acted as a local buyer for growers in Avaipa by buying wet cardamom pods and drying them, then consolidating the crop and shipping it to Pacific Spices in Rabaul (accompanied by a staffer). Farmers were excited at their first breakthrough into a new market.

Later in 2005, a second harvest of approximately 1.3T was not able to be moved to Rabaul in a timely way due to poor cash flow management, and no attempt to communicate with Pacific Spices or MFFN—both of which could have provided capital to cover shipping expenses. The result was the supply of poor quality cardamom due to mould in the product following a long period of storage under less-than-ideal conditions. The shipment was eventually made to Rabaul but Pacific Spice refused to purchase due to the poor condition of the product.

To understand the challenges growers face, it may help if we understand the logistical challenges they face:

- bags of dried cardamom had to be hand-carried for five hours to the nearest road
- they were then trucked to Buka on a rough road for up to six hours and then stored under less-than-ideal conditions waiting for the ship
- they were then loaded onto an overnight vessel to Rabaul that followed a weekly schedule.

The Avaipa district has remained affected by the roadblocks of the Mekamui Defence Force—a remnant unit of the civil war which is yet to fully accept the peace process, even in 2011. This has created further logistical and social challenges for IITC.

Farmers who did not receive payment from the failed shipments (some had provided their produce on consignment) and those who were getting ready

IITC team of volunteer extension workers based in remote interior of Bougainville at the Ipa farmer training centre.

to harvest for the first time were greatly discouraged. Most abandoned their new cash crop plots and the reputation and credibility of IITC among local farmers was damaged.

The key challenges identified by IITC were:

- how to transport cardamom from ferment station to road (farmers want to sell closer to their homes)
- how to build a sustainable system for local purchase of green pods with drying and shipping to the buyer in distant Rabaul
- how to move from a production focus to a realistic understanding of the market and marketing process.

b. Critical success factors

A number of success factors were identified by IITC and MFFN:

- there is need for a reliable buyer able to purchase within the Avaipa district at a consistent price
- a constant supply of cardamom must be sustained to support the market; this includes regular production, drying and selling
- these needs being met, cardamom could then provide a regular income to farmers compared to other cash crop options.

IITC has learned from their experience and agreed on the need for a new approach to marketing using private sector partners. They realized they did not have the skills or capital to run their own marketing operation. Previously, there were many families growing cardamom however many gave up because there was no buyer in Avaipa in earlier years.

MFFN provided a microloan to local spice company, BNRD, in Arawa, owned by a Bougainvillean from a different part of the island. Unfortunately, this attempt to establish a business minded middle-of-the-chain trader failed. BNRD ran into cashflow problems and closed. The managing director was offered a scholarship to study in New Zealand and left the country.

The grant of K5000 from MFFN was to be repaid by BNRD and then convert into a revolving loan for agriculture entrepreneurs to assist small farmers. The fund is managed by a local NGO, Bougainville Micro Finance Institute, a well established partner of IITC. The revolving fund was to be guided by a steering committee that would have included IITC. The full loan amount had not been provided to BNRD and the second tranche of K3000 was not released. BNRD failed to establish the fortnightly cardamom buying points that it had agreed to do, although it did operate the buying points on at least two occasions before closing. BNRD believed they were going to export and had a licence to do so, but probably lacked the capacity and capital.

IITC requested that the remaining loan fund (K3000) be provided to one of their own officers, cardamom farmer Michael Nike. Michael assessed the BNRD model and its failings and was concerned about how to assist local cardamom farmers to sell their produce. He came up with a business plan that appeared profitable but he needed start-up capital for the first trades so as to lay the foundation for a sustainable middleman arrangement. This was partly provided by the microloan and partly from his own investment.

A workshop in Arawa (2006) identified problems:

Farmers to market links—what are you doing now?

- still in the process of negotiating with Pacific Spice Industry Ltd (Rabaul)
- demand for the following spices: vanilla, cardamom, galip nut, chilli, betel nut, lemongrass, turmeric, ginger
- BNRD identified as buyer
- one tonne cardamom requested before June 2006
- cardamom harvested and dried by farmers
- awareness conducted for spice market to farmers
- transportation of cardamom from Pane to Borumae already planned (by youths)
- buying point arranged (boromae and Kongua
- go-ahead from government agency granted.

What is the role of MFFN?

- advocate to funders on behalf of partners and farmers
- secure funds
- train TOT to partner organizations
- organise workshops and forums
- inform Autonomous Bouganiville Government about existing activities and plans for such existing organizations (MFFN)
- explore possibility of downstream processing
- fund small projects with bigger donors.

Discussion:

- not enough contact between PEDC and government
- policy regulation is role of government
- a lot of problems with jealousy and concern over blockages at roadblock
- transport—carrying down to road—how to organise
- no local buyers
- one export successful
- need to strengthen administration
- consultation
- seed production training with women's group in Arawa.

c. Results and experience

Timeline

As mentioned, a series of meeting with MFFN helped IITC to realisation that while they were good at extension for farmers they were not very good at managing a spice trader business. They were asked to examine the local business players and see if there were any business with an established cash flow and experience in shipping and trading that might want to take up the opportunity to supply Pacific Spices in Rabaul.

2006

A workshop in Arawa was took place with input from FAO and MFFN and covered trade issues as well as an introduction to value chain approaches with representatives from the region.

This included sharing experiences on organic produce marketing by Venui Vanilla from Vanuatu and the partnership with a local NGO, FSA, where there are clear divisions between the commercial enterprise and the levy paid to the NGO to provide extension services to spice farmers.

The revolving loan was established for agribusiness entrepreneurs who wanted to bridge the gap with existing buyers of spices outside of Bougainville.

2007

A visit to Vanuatu was made by two IITC officers to learn from farmers' organization FSA and their partner, Venui Vanilla.

2008

Two representatives from IITC including Michael Nike attended the FAO AAACP meeting in Maravagi in October 2008. At that meeting a proposal was put together for support to take the marketing efforts to the next stage. In the end, FAO did not fund the proposed activities as the proposal was delayed in reaching FAO, but the activities in the plan were effectively implemented on their own

2009-2011

At the same time as these changes were occurring a new company, Digicel, entered the telecommunication market in PNG and mobile phone coverage arrived across most of Bougainville. This revolutionized the ability to communicate and Michael was able to forge a close commercial relationship with Pacific Spices in distant Rabaul.

Michael Nike successfully purchased local green and dry pods and made the shipments to Rabaul. He formed a good working relationship with Pacific Spices which among other things now pay for the cost of freight directly and the market chain was established.

Now, many farmers in the district are replanting cardamom after seeing the regular sales of the remaining farmers. Cardamon would be the main income for most families who grow it and has benefitted women in particular.

Farmers have a high level of trust in Michael. This was demonstrated by the fact that initial sales had to be paid later once a final sale was made in Rabaul.

Support

FAO support was limited to training and exposure to value chain approaches.

MFFN was able to play a more long term approach in providing microfinance to two different business who wanted to become traders for the cardamom with no existing market in the local area. One of these failed, the other succeeded.

Michael Nike, the local trader, was helped to develop a business plan and implement it with start-up capital. Farmers in a close network also agreed to provide their product up-front with payment following sales. The trust was already in place to allow this to occur.

MFFN supported the following interventions through its core funding from Oxfam:

- a cashflow grant was provided to local trader Michael Nike; this was redirected from Bougainville Micro Finance Institute that was managing the revolving fund (funds have still not been recovered from BNRD)
- expenses provided for Michael to travel to Rabaul and negotiate a business partnership with Pacific Spices; the result was that PS offered to pay freight costs up-front.
- upgrading of driers at the location of the trader and at two other locations in Avaipa was carried out
- exchange visits to see the FO/private sector partnership in Vanuatu

Participation at regional trainings and workshops:

- IITC attended Maravagi workshop in 2008 at start up
- invited to the third regional workshop but key people did not have passports and could not get them in time or without the expense of travelling to distant Port Morseby
- IITC did not follow up in time with grant application opportunity under AAACP project
- MFFN core funding from ended and Oxfam was unable to provide further support; the Network was unable to continue its resourced secretariat role, which made it almost impossible for the more remote MFFN partners such as IITC to participate in further AAACP activities.

d. Improved business model

The loan of K3000 from IITC was used to fund the cashflow of MMMichael enterprise. The fund is yet to be repaid but parties in the process are confident that this will be done. The plan of IITC is to put repayments into the microenterprise loan fund to be managed from Paruparu by the local branch of Bougainvile Micro Finance Institute—the microfinance association—with a steering committee that includes IITC.

To date there have been sales of approximately K17,000 worth of cardamom by farmers through Michaels operation at the buying point and drier at Sipuru village in the centre of Avaipa district.

Michael buys within the district and pays labourers to carry the dried pods on the five hour walk to the road, which has overcome the transport gap. Labourers are paid 6kina per 15kg—this also generates local employment. From the road the spices are transported by a truck to a storage facility in the township of Arawa where it awaits shipment to Pacific Spices in Rabaul. Pacific Spices is a long established and stable enterprise that has indicated it would buy whatever volume is produced by Bougainville farmers.

Pacific Spices Ltd

Pacific Spices is based in Vunakanau, near Rabaul in East New Britain, PNG, and is made up of growers, buyers, processors and exporters of herbs, spices and essential oils.

Their main emphasis is on developing value-adding in the villages and working closely with farmers and farming communities. Pacific Spices assisted 218 producers in the Komgi Community to achieve NASAA and USDA organic certification and also works with 1500 other conventional producers in East New Britain, New Ireland and Bougainville.

Their first five year plan (1999-2004) focused on:

- consistent purchasing at farmer level and quality control
- setting up purchasing, processing and export of cardamom
- increasing awareness and farmer confidence
- establishing central facilities
- market research.

Their second five year plan (2005-2009) involved:

- addressing the issue of small quantities through sale of high quality, packaged spices
- connecting farmers to higher-value markets
- increasing local value adding
- marketing products with organic certification
- diversifying the income base for small farmers.[1]

The interviews were conducted with Ian Sexton, a founder of Pacific Spices. Their website is www.pacificspices.com.pg

1 Arek, T. (2005). Development of Pacific Spices: A Small Producer, Buyer and Exporter Spice venture. Development Bulletin, 67: 19- 21.

There are plans for Michael Nike to share some profit with IITC at some point. This has not been clearly negotiated, it is rather an in-principle arrangement in the working relationship. At the moment the focus is on building a sustainable business.

Cardamom is currently being sold to Pacific Spices every two months. This has provided farmers with a regular source of income as the buying point at Sipuru purchases on a weekly basis for their drying operation.

Farmers in other areas of Bougainville are now starting to plant cardamom and Michael has set up a buying point in the town of Arawa for farmers from different regions.

Farmers typically earn about K20 a week from cardamom sales to Michael. By comparison, cocoa farmers in this area can typically earn K25 (K50 a fortnight) when selling to Avaipa-based cocoa traders but the cocoa income is not regular. In an area of very low incomes this provides a stable source of money for meeting basic household needs.

Women are the main sellers of cardamom and are reportedly using the income for things like school and hospital fees. It also brings cash into the local economy and this has reportedly strengthened trade at the twice weekly Paruparu (Avaipa) fresh produce market. They have also noticed increased contributions by the farmers to community needs such as school fundraising events.

The main cash crops in the area are now cocoa, cardamom and chilli. The latter two are promoted by this enterprise and the IITC farmers organization

Labour for carrying of produce down to the road continues to be a challenge for farmers, however Michael's buying point and regular purchase has overcome this problem.

Pacific Spices buys at 4K/kg dried product from Michael. Michael receives income in the form of a commission for his intermediation with other farmers. For example 10K per day for is charged for use of drier for farmers who want to do their own drying – Michael buys green and dry pods.

On A 550KG shipment the trader can earn a gross profit of about K310. The business model appears financially sustainable and will become more profitable as volume increases.

Small farmer income

As an example of a cardamom producing family in Avaipa, IITC founder Bruno Idioai's family members are harvesting about 90kg every two months earning K180. As family labour is not paid for there are no cash expenses.

There are currently about 18 families supplying Michael and numbers are expected to grow (eight families in Sipuru village and 10 in Mainoki village)

People who sell produce to Michael become members of a cardamom group of IITC. At the moment there is no fee but this may be introduced at a later date.

As part of his social service, Michael takes 10 percent from payments to farmers and puts this into a savings scheme for the family that is managed by the enterprise. They can then withdraw when they need it for a good reason such as school fees. For example, Bruno's family has a fund of K150 to be used when needed. Given that most households in this area have no cash reserves, this is a useful service.

Ipa training centre

IITC has a field-based training facility called Ipa, in Avaipa, which is where extension activities are coordinated. The centre has a vision to become financially self-reliant based on income from the large plots of cardamom established. It aims to do this in order to support continued farmer training without depending on outside donor funding.

The Ipa centre sells green pods to Michael @ 80 toya. Farmers who support the centre harvest and transport the cardamom for the one-hour walk to Michaels buying point at Sipuru for a modest fee of K5 a day. This assists families who do not have established plots of cardamom to start to earn income and to become familiar with the crop.

Top harvest is about30 kg—a reasonable amount to carry and takes about two days to harvest and transport. This yields around K24 from sales, minus K10 of expense—a margin of K12 for the centre. This type of harvesting occurs on at least fortnightly, leading to a modest but regular income that helps support the community-based training centre.

Ipa (ie. IITC) provides training and extension on spice production focused on planting and management. They train at the clan level on request. Clans and farmers don't pay.

There is a new system for people to pay when they use Ipa facilities for other purposes at K50 per week—K10 goes to the centre, K10 goes to the facilitator, K10 kina to the parish, K10 landowners, K10 kina to the village clan council of chiefs (the village governance system). IITC feels this is a model that will grow and build the ability of IITC to sustain itself without donor assistance.

This model cements continuing community support and provides a modest income stream.

e. The future

- expand the number of driers to cope with expected increased production
- government has announced start of a road to be built to Avaipa which would reduce the distance that the crop must be hand carried
- Michael is planning on diversifying his business into buying cocoa as well as cardamom; he is also expanding a buying point in the town of Arawa, hoping to attract more highland farmers from other areas of central Bougainville
- there are plans to set up other buying points in different areas of the mountain region so that farmers do not have to transport the cardamom all the way to Michaels buying point at Sipiru; some farmers are interested to run their own driers and buy wet pods, thus adding another link to the supply chain
- IITC and Michael are looking at a model where the trader provides some financial support to IITC for extension services, perhaps similar to the Venui Vanilla model; this could also be negotiated with Pacific Spices in Rabaul
- Michael plans to investigate essential oil production; this is already being done by Pacific Spices but they are not prepared to share the technology and so Michael and IITC again faces the challenge of isolated and difficult access to information.

f. Lessons learned

a. Overcoming suspicion and mistrust of middlemen by farmers and local institutions is a significant challenge. In this case it could only be achieved by an 'insider' from the community taking on the middleman role.

b. Traders need to build and maintain trust—for example by offering add-on services of social benefit such as the savings scheme. Traders are embedded in complex social relationships and obligations that are a very strong feature of Melanesian culture. This places challenges on business decisions.

c. Challenges in the enabling environment were critical for success for remote farmers beginning to access new markets. Roads and communication are essential ingredients but are often lacking.

a. Willingness by MFFN (and donors) to take risks with private sector was critical. Failures should not prevent future attempts given the challenging business environment.

b. Need to focus on long term attitude changes and long term partnerships to open up sustainable market links to remote small farmers

c. Proper analysis of the value chain needs to be done, as with a focus on production alone is a dangerous path for a farmers' organization.

d. Challenges of connecting remote farmers who are disadvantaged in so many ways. Without the long term nurturing of MFFN and FAO this link may never have succeeded despite an enormous amount of locally driven (and non-donor funded) effort.

e. Importance at some level of an enabling environment, eg. Digicel mobile phones and upgrading of the Bougainville trunk road between Arawa and Buka were key to Michael's success.

See Attachment 1 for Melanesian Farmer First Network (MFFN) goals.

3 Solomon Islands Planting Material Network

Introduction

This series of case studies have been prepared as part of the final stage of the FAO component of the EU AAACP project.

FAO conducted a regional program in the Pacific with total funding of approximately USD$500,000. The program worked with farmer organizations (FOs) to strengthen their business models in order to improve market opportunities for small farmers in the Pacific. FO's in the Melanesian countries of Papua New Guinea, Solomon Islands and Vanuatu were involved through the auspices of the Melanesia Farmer First Network (MFFN). The FAO project also provided some funds to MFFN to organize regional events with the aim of strengthening an existing regional secretariat so that it might be able to provide ongoing support to FOs in Melanesia. The case studies document the impact on specific FO's involved in the project.

This series of five case studies in Melanesia has been produced by TerraCircle Inc[2] to document the experience of the project in supporting farmer organisations and their market links to small farmers. The studies were developed through fieldwork, interviews and documentation of the authors' own experiences in working with farmer organisations over recent years.

The case studies are detailed in sections:

a. farmers' organization business model
b. critical success factors
c. results of the intervention
d. the upgraded business model
e. future plans
f. lessons learned.

The farmer organisation business model at the beginning of the project

Farming is of critical importance in the Solomon Islands where approximately 80 percent of the 550,000 population is engaged in subsistence agriculture and food production for local markets, with some smallholder export cash cropping.

The viability of the dominant slash and burn farming system is now coming under increasing pressure from land degradation and shortened fallows, which are linked to the impact of population growth on the land. The high level of food security is typically achieved at the household and the local level. A high level of on-farm diversity is important for rural livelihoods, however there is evidence that crop diversity is declining with the intensification of agriculture (e.g. JANSEN 2002).

Women continue to play a central role in agriculture, which is largely family based.

Much of the rural population is isolated from markets and other services due to the existing, limited infrastructure.

The focus of this case study is a farmer organisation, the Solomon Islands Planting Material Network (PMN). PMN is a membership-based agency with members in all of the nine provinces of the country. The PMN has no constitution and is not formally registered as is KGA which hosts or 'auspices' the network.

The objectives of the network are:

1. The sharing of planting materials among village farmers
2. Conservation of local planting materials and crop biological diversity for the future, by farmers and for farmers.
3. Encouraging diversity because it is linked to food security.

The farmers network was initiated by a gathering of farmers, vocational training centres and NGOs at a meeting in 1995 and began with about 20 members. That meeting was facilitated by the Australia-based NGO, the Seed Savers Network[3] which has global experiences with similar successful networks. It has grown steadily and now has over 3000 members, making PMN one of the larger and longest-established farmer organisations in the Solomon Islands.

The PMN was formed in response to high farmer demand for new varieties of seed and an increasing dependence on commercial, imported hybrid seeds that were considered poorly suited to organic, low external input smallholder farms. The demand for exotic vegetable

2 http://terracircle.org.au

3 http://www.seedsavers.net/

seed was driven by growing market opportunities in fresh produce markets, mainly in urban areas, and increasingly by changing consumer preferences for a wider range of vegetables across the Solomon Islands. Most traditional crops are vegetatively propagated (grown by cuttings, suckers, corms etc) and therefore farmers do not have strong traditional knowledge or practices with seed handling.

In-situ germplasm conservation through use

The Network was supported for its first five years by an Australian NGO APACE [4], mainly with AusAID funding. Eventually, the Australian NGO handed over the Network to an indigenous NGO, Kastom Gaden Association (KGA) that was formally established as a charitable trust in 2000. KGA has continued to support the PMN as one of its core services to farmers through project funding from donors.

PMN grew out of the experience of testing introduced (imported) open pollinated vegetable seed and the finding that there was already considerable open pollinated seed diversity among Solomon Island farmers, however the existing diversity was poorly distributed and at risk of being lost due to poor farmer practices in seed saving.

The Network is a seed and vegetative materials exchange network designed to strengthen local seed systems so as to provide the basis for regional and national food security. The network asks members to contribute small quantities of seed of their own local varieties. These are multiplied at a central seed garden and shared with other interested members. In this way, PMN acts as a clearing house rather than providing long term storage of germplasm. It is a form of in-situ crop conservation through use.

Exchanging seed and farming knowledge

Increasingly, PMN focuses on giving member farmers opportunities to exchange agricultural knowledge and techniques in a farmer-to-farmer approach as well as its more traditional exchange of seeds and other planting materials.

This is done by members participating in training, look-and-learn visits, crop diversity fairs, farmer germplasm collections and other activities. These activities are usually coordinated by KGA staff and other farmers.

An ad-hoc newsletter is produced by the network and posted to members or hand delivered through selected farmer organisation partners. The newsletter shares lists of seeds available and other services for members. A challenge in distributing the newsletter is the inadequate postal service in the Solomons, as a result of which many members do not receive their newsletters.

The Solomon Islands government has recognized the work of the PMN. In the 1997 national food and nutrition policy, as well as on the regional level the Network is a member of PAPGREN—the Pacific Agriculture Plant Genetic Resource Exchange Network that is hosted by Secretariat of the Pacific Community (SPC), the Pacific region intergovernmental organisation.

PMN has been a partner in numerous donor projects and has been contracted to supply seeds for international NGOs operating in the Solomon Islands and for disaster relief activities.

Recently, the Solomon Islands Ministry of Agriculture has worked closely with PMN to distribute sweet potato varieties.

4 http://www.apace.uts.edu.au/docpublish/kastom.html

How PMN is supported

PMN is a farmer membership organisation. Members may be individuals or groups.

The group membership has grown substantially and there are currently 175 community-based organisations that are group members. This number includes farmer groups, women and youth groups and NGOs. This provides the PMN with potentially a significant platform for reaching large numbers of informal farmer organisations throughout the country.

Individual members pay a $15 membership fee plus an annual subscription fee of the same amount. Group members pay $20. Membership has grown steadily but the concept of annual subscription has been slow to take hold among members with less than two percent paying their annual subscriptions, posing a serious challenge to developing a financially sustainable business model.

Many farmers consider themselves 'members' but do not pay the annual fee. In recent years there has been poor connection between service provision for 'up to date' (ie. currently subscribed) members versus those who have not renewed subscriptions. The result is that there is little incentive to pay subscriptions on an annual basis. Collection of annual subscription fees has been hampered by an inadequate member information system but this is now being improved.

The challenges of collecting small fees from remote areas also hampers progress. Either fee can be paid in cash or in-kind through sharing of farmer planting materials, or through a day's volunteer work for the Network.

From the outset, the PMN membership fees were considered a member contribution rather than a user pays basis. The cost of service delivery to remote area in the Solomon Islands is high and the target group, as low income, semi-subsistence farmers, was considered not to be in a position to pay. Solomon Islands per capita income is USD$1030[5] per annum but in rural areas, particularly remote areas, incomes can be as low as SBD$400 (USD$50) according to KGA assessments. This validates the Network's role in providing an important farmer-support service of considerable social benefit.

One thing the payment of a fee has done is to provide effective screening to identify the more active and interested farmers rather than those who only want handouts. This is a challenge in the Solomon Islands which was ranked 8th in the world in terms of aid per capita in 2005[6]

Decision making

Network members provide direction through ad hoc farmer conferences held every two to three years. The most recent conference was held in early 2012 and prior to that in 2009.

Attendance at the national farmer conference is determined through application by members and selection of representative farmers from the regions by KGA staff. A sample of about 100 to 150 members come together to share ideas and set strategic direction for the Network, which KGA then attempts to implement.

The critical role of the Burns Creek seed production garden

The networks 'central link' is located at Burns Creek in Honiara, at the Kastom Gaden Centre on the grounds of the Zai Na Tina commercial organic farm.

Here, the central link acts as a clearing house for the sharing of new and old varieties of food crops between members and for the multiplication and distribution of planting material, which it encourages farmers accessing its planting material to maintain the varieties on the farm. This approach improves the security of crop genetic resources through distributing them over a larger geographic area. Loss of varieties in one location can be replaced by the same variety from another region. While a farmer retains property rights to a crop drawn from PMN resources, the entirety of that genetic resource is treated as a common. This is an important 'public good' role for PMN as the Solomon Islands has agro-biodiversity of global significance in taro, banana and yam.

The Burns Creek central link is set up as a production, training and genetic resource research facility. There is a collection of fruit trees, a screen house for maintaining

5 Source: world bank - http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf

6 http://www.nationmaster.com/graph/eco_aid_per_cap_cur_us-aid-per-capita-current-us

virus-free vegetative planting materials of sweet potato and taro varieties including the large swamp taro. Young farmers participate in attachments for periods from one week to three months and assist with the seed production and conservation activities on a voluntary basis. A full time seed curator technician supervises seed production. The recent arrival of a serious pest—the giant African snail—has now prevented the centre from distributing vegetative planting materials. This highlights the vulnerability of centralized collections and the benefit of storing and sharing varieties throughout the membership has been the model adopted by the PMN.

Seeds are produced using an 'appropriate technology' approach that is appropriate to Solomon Island social and economic realities in that it is maintainable, manageable and affordable to farmers. The system used is called 'ultra dry' storage and was developed with technical input from the Seed Savers Network. The system avoids the need for refrigeration or air conditioning to store quality seed in the tropics. The approach is now well established and has been proven viable through PMN experience.

All seed produced is germination-tested in a nursery by being grown in soil. Seed quality at the time of packaging as well as after temporary storage in the seed bank has proven excellent.

Seed is dried in the sun each day and stored with silica gel or wood ash desiccant in gasket-sealed buckets. There have been quality issues when the seed is packed in paper sachets after it leaves the seed bank, when it is stored by or is in transit to farmers.

Diversifying staples introduces a new approach

Since 2003, the PMN has moved into collecting, sharing and diversifying the nutritionally important, staple root

Farmer run germ plasm centre for collecting and multiplying sweet potato varieties crops of sweet potato, African yam, cassava and banana. This is more land and resource intensive than multiplying the supply of seed-propagated vegetables and has required a different approach to reliance on a single, small seed production garden in the capital.

The model developed consists of a network of farmer groups supported either through grant funding or acting on a voluntary basis to run 'farmer germplasm centres'. The centres accommodate a collection of local varieties and evaluate and multiply new varieties from outside of their area. The best varieties, known as the 'farmers best' collection, are shared among local farmers and within the national PMN network.

Seed bank as clearing house

The seed bank at PMN has not attempted to maintain long term collections of its accessions. Rather, it acts as a clearing-house for distributing seed to as many farmers as possible. In this way it enhances crop security through on-farm conservation.

The seed bank has 274 accessions on its records of which 78 were made available to farmers in 2011 (see Annex 1). Seed can be stored for a number of years but is usually distributed within 12 months.

PMN has also discussed the possibility of long-term storage in a regional seed bank at SPC CePACT but this has not eventuated to date. The one exception being for taro germplasm collected in 2005 by the PMN working with the Solomon Islands government on a regional taro conservation project with input from IPGRI. A sample considered to represent most of the genetic diversity is now stored in cryopreservation at the SPC CePACT. It will be possible to reintroduce genetic diversity in future decades should it become lost.

PMN has been instrumental in reintroducing sweet potato germplasm stored at CePACT from collection efforts in the 1970's to the Solomon Islands.

Decentralisation

With the serious logistical challenges of providing core services (collecting, multiplying and sharing quality germplasm as well as local information exchange and training) across the country, the PMN has made various attempts to decentralize.

The plan has been to establish a network of centres that produce quality seed planting materials for farmers. The first attempt in the late 1990's was facilitated through a partnership with the Ministry of Agriculture which selected two government operated rural Agriculture Demonstration Centres to become seed production sites. Funding (by the EU under STABEX) and an intensive effort in training and support were provided to the Ministry of Agriculture staff at these centres. Virtually no seed was ever produced, however, despite the centres having fulltime staff—who were largely idle at the time.

Alternatives

On the other hand, Community Based Training Centres, which are run by community or church organizations, and individual farmers have proven more effective, but there remain challenges with sustainability.

In Makira, a number of very active PMN members maintain banana collections of at least 120 varieties. A second attempt at decentralized rural seed centres was made with a Catholic Church vocational training centre at Vanga, in the Western Province. The partnership was much more effective, but seed production suffered from very high rainfall typical on that island. By contrast, the more pronounced dry season of the area where Honiara is situated is fairly unique in the Solomon Islands and is well suited to seed production.

Conflict stimulates a new approach to seed production for food security

The PMN has supported selected farmers to become specialized seed growers on a contract basis. This was done in 2001-2002 as a project to produce bulk seeds for internally displaced people as a results of the communal conflict at that time. Contracted farmers were paid SBD$0.50 a packet to produce selected seeds. Training was provided and germination testing done before seed packets were made available for purchase.

In total, over 30,000 packets of seed were produced by about 30 specialised seed production farmer households. The seed packets were distributed to internally displaced families through KGA and other NGOs.

At the projects completion, PMN did not follow up on its experience and returned to centralized seed production in the post-conflict period. This was an interesting model for contracted seed production that might be further explored and compared with the costs and quality of seed production at the central seed garden.

More recently, the ten lead-partner farmer organisations that have been affiliated with KGA since 2009 were asked to take on seed and planting material production roles during 2010 in support of the Network. This is discussed in the Results section.

Keeping the records—the PMN information system

Member records have traditionally been recorded on a card system on medical clinic type cards that are stored in a box. Recorded is member information plus a record of seed sent and received.

The system has worked but the recorded information was difficult to access—for example, a search for where a particular variety had gone required manual reading of hundreds of cards.

A number of attempts were made to move to a computer based database in the 1990's but computer problems such as crashed hard drives and a lack of skills to use the data led to the return to the manual card system.

In recent years the PMN information system has been upgraded to a more robust web-accessible database where member records are collected with technical support outsourced to a group in Australia. This has allowed much new learning and analysis and a backlog of data is slowly being entered into the system.

Upgrading the business model

> *'Farmers need to be self reliant, share their farming methods, skills, ideas and planting materials and learn from other members—this is what being a member of PMN is about…'*
> *(PMN farmer member at 2009 farmers conference)*

While the PMN has proven an effective and empowering network for many of its members over the fifteen years of its existence—mostly through providing seeds and information—its own sustainability has been dependent on donor funding. There is now the belief that the Network should move to a sustainable footing, and, recently, a major donor has asked the organisation to develop a plan to reduce reliance on donor funds.

The focus of the intervention under the EU AAACP project has been the need to build a plan—an improved business model—for the sustainability of basic PMN member services. The basic services are considered to be the supply of planting materials and at least the present level of sharing of information through the newsletter.

These services are valued by farmers but with increasing growth has come increasing demand. Activities that are more resource intensive, such as field activities and training, would continue to be carried out by KGA through its donor-funded projects.

At the same time, seed production at the central link in Honiara had been falling and was down to about 200 packets per month from a peak of over 1000 packets in earlier years. There is a need to improve the quantity, quality and range of seed available in order to meet the needs of members and for the potential to be realised of increasing commercial seed packet sales. Poor packaging and slow or broken distribution channels meant that less than 50 percent of seed packets were considered viable by the time farmers planted them, due to moisture damage.

In order to achieve these changes there was a need for a business plan that would identify key constraints to meeting member needs and define a path towards sustainability. Changing the attitude of PMN staff to working in more of a business mindset to service provision has been a key change.

Critical success factors were seen as:

- members receive seeds and planting materials reliably
- increased seed production to meet the needs for members and for commercial sales
- the problem of paper sachets and quality issues once the seed leaves the seed bank need to be solved.

These success factors would lead to higher rates of annual subscription payments and increased income from sale of seeds to nonmembers.

Overview of the interventions, support and experience

A business plan was developed in November 2009 by a consultant, Will Tomlinson, who was hired by KGA. The plan identified key constraints in production and distribution and identified the potential for PMN to operate as a seed business that provides better services to members as well as functioning as a commercial seed business so as to sustain operations.

Table: summary of the recommendations and strategies of the business plan

Business plan recommendation	Strategies
1. Grow the Honiara seed farm	Produce 500-1000 packets of seed per month
1. Incentivise the managers	Incentive to increase nonmember seed sales (for profit) after a minimum number of PMN member distributions are made each month
1. Better seed packaging	Store current paper packets in ziplock coffee-type bags, later get custom made foil packets
1. Improve the value of PMN membership	Encourage dormant members to pay annual subscriptions: • A grace period where members have access to improved seed services. After that, only fee-paying members access seeds • Economic motivation for members —either pay subscription $15 for unlimited seeds or $5 packet • Make aluminium storage packs available for a fee
1.Consultation and training with members	More training on limits of seed life in packets, value of PMN membership fees and new distribution system
1.Localise and increase seed production	Improve seed gardens at partner farmer organisations to allow them to grow and distribute seed locally; this would allow Honiara Central Link to concentrate more on commercial seed sales
1. Expand commercial sales	Generate SBD$2000 per month in nonmember seed sales
1. Incentivize partners to service and grow PMN	• Bounty for every new PMN member signed with survey form completed • Earned revenue from seed sales for partners
1. Maximise Information opportunities	• Include planting instructions on larger paper seed packets • Use mobile phone network expansion to send seed information by SMS to members
1. Maximize income opportunities for farmers	• Increase overall varieties and production will see increase nutritional content from gardens and increased income earning potential • Investigate options for seed distribution to match the supply chain/value chain constraints.

In addition, PMN staff developed other areas that they saw as complementary to this plan:

- establishment of seedling sale enterprise for PMN income
- exploring new models of revenue (fees) collection from members
- more focus on customer (members and seed customers) services at the Central Link
- entry of information on members and services onto a web based data base (seed bank).

What worked

The mindset of PMN has changed to one where it could be possible to support itself.

PMN and other KGA staff are thinking of operating in a more businesslike way in terms of managing income and expenses. While it is a long way from achieving financial sustainability there has been increased focus on earning income and assessing options as well as much improved information that will help with future decision making on sustainability.

Seed production quantity and quality has improved. Germination tests are showing consistent results over 80 percent and mostly of 90 percent or above germination rates at time of production and after storage.

A trial was done on seed storage that showed promising germination results indicating the storage methods in use remain effective. Seed production has increased and is now at 600-700 packets a month. This is within range of the target in the plan. Distribution of seeds to members has also increased as has record keeping and entry of records into the more accessible online database.

The less successful

A challenge has been the hosting of PMN under KGA and this has caused some conflicts of interest between the two organisations. For example, the PMN's charging fees for attachment training services provided to young farmers was seen as an earlier success for the PMN (in income generation), but this was abandoned by KGA management which wanted to make training more accessible and which felt they were already funding PMN and so it should not charge for services.

It seemed that the organisational memory of why the initial fees were introduced was forgotten. At certain times this had earned PMN up to $10,000 a month. Students had earlier been asked to pay a $600 each for their attachment program—these are now largely provided for free. Many students were also sponsored by various KGA and other donor-funded projects.

Seedling enterprise is seen as a promising area for growth by PMN staff. But to date it has earned little, averaging only $80 per month.

With an NGO management approach there is little incentive for PMN staff to increase sales and income. The business plan suggested incentives be built into the two PMN staff positions and possibly among partners, but this has not occurred to date.

What we would be do differently

A retrospective perspective suggests that greater ownership of the business plan was needed by senior KGA management, and possibly also by the board in order to make supportive decisions for the transition of the PMN business model. A stakeholder meeting and presentations to senior staff, management and board by the consultant could have helped.

More financial analysis needs to be done on the real costs of services such as seeds and newsletters provided to members. At present, this information is difficult to extract as different parts of PMN costs are paid from different projects and a mix of different income sources.

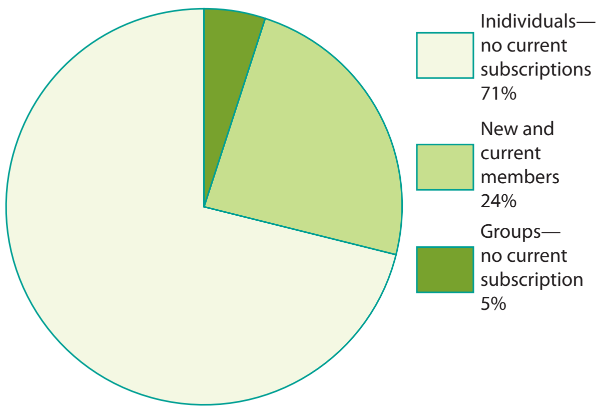
Structures need to be established to allow the PMN to operate its own income and expense accounts. All PMN income needs to be returned to a central record and made available for PMN service provision if it is to focus more on a financially viable business model.

The improved business model

In this section we look at progress that has been made against each of the business plan recommendations and ask whether the strategies suggested were adopted and successful.

A key indicator of success is assumed to be the number of PMN members who pay their annual subscription—presumably because they value the service they receive. Subscription renewals have increased from 6 in 2007 (0.6 percent of members) to 64 per year in 2011 (2.1 percent of members) but still remains very low.

PMN members–2011



Growth in new memberships is also an indicator that PMN services are in demand. Membership growth has increased from 11 percent growth per year prior to the intervention to 25 percent per year in 2010.

YEAR	Members at end of year
2011	3016
2010	2533
2009	1868
2008	1016
2007	910

Theoretically, the PMN should have earned about $8000 in 2010 from new membership and subscriptions. But there are problems with the income collected from new and renewing members not reaching the PMN account. It is reported by PMN staff to sometimes go into other project activity funds, especially when collected in the field. As a result, PMN continues to depend on donor funds provided to KGA.

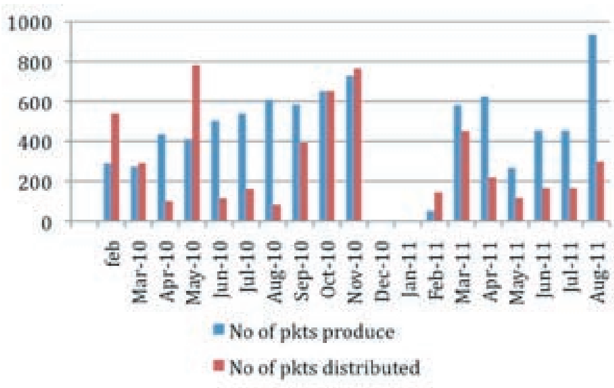
Grow the Honiara seed farm

Seed production at the Honiara Central Link has increased.

Seed production follows an annual cycle peaking toward the end of the year at the end of the dry season. No production is done in December and January when the seed garden largely closes down to caretaker mode.

In November 2009 production was estimated to be 200 packets a month. It now averages around 500 packets a month but there are promising indications of substantially increased seed production during the current dry season. This indicates that efforts to set targets in the business plan and improve systems are paying off.

Seed packets produced and distributed to members



Considerable effort has gone into better managing the information produced on seed production. A data entry casual was hired during 2011 and as a result a large backlog of paper records on seed distribution and membership have been entered into the online information system.

The PMN Central Link has records of 271 plant accessions that have moved through the seed multiplication garden and seed bank.

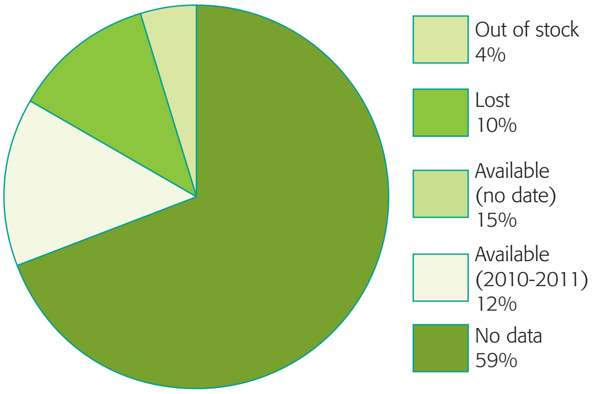
Out of this:

- 33 varieties were recorded as available during 2010-2011
- a further 42 varieties were listed as available but had no date on that availability making their status uncertain
- 26 varieties were lost
- 160 have no records—an important gap to be addressed in regard to management of information on PMN plant genetic resources.

The numbers above do not include the considerable germplasm varieties held at germplasm centres or PMN-supported lead farmer collections such as the banana collections in Makira.

A project that PMN participated in with AVRDC during 2009-2011 impacted negatively on seed production by occupying large areas of the seed garden with trials of new varieties imported from AVRDC at the expense of seed bank multiplication activities. PMN was not consulted (KGA made the decision) and did not see new varieties as an urgent priority—rather the upscaled multiplication of proven local varieties was the PMN priority.

PMN Accession at Central Link, Honiara



The table below shows seed distribution from the Central Link seed centre of PMN.

Total seed distribution summary:

Year	2009	2010	2011
Seed packets distributed	682	3247	3385

Source: PMN Information System database.

The distribution figures above are likely to be understated as the current information system has many gaps on distribution—particularly for seed distributed via partners or field staff.

The varieties of seeds and other plants available from PMN is quite extensive and includes vegetables, root crops, fruits, legumes and animal fodder. These available are included in Attachment 2.

The PMN has two full time staff:

- Network Coordinator
- Seed Curator.

There is a third staff member, Root Crops Technician, who in theory could be part of the PMN team but at present is supervised under the Organic Farming Component of KGA and works somewhat independently of PMN. In effect, the two PMN positions are KGA staff seconded to focus on PMN support.

The current staffing system of KGA provides little room for commercial, production or sales-based incentives as their employment is based on an NGO-type staffing structure where changes must be approved by the board.

Discussions were held about separating the PMN operations from KGA core functions to give the PMN more independence to develop its own improved business model. This could mean a partnership agreement between KGA and PMN similar to the agreements KGA makes with other farmer organizations. PMN would receive a contract and funding from KGA to provide certain services. Such a contract could also include membership and income targets. There is support for the concept within KGA. Better understanding of the dividing line between KGA and PMN would be a positive outcome of such an agreement.

Improving seed packaging and quality

One key objective of the business plan was to bring in better quality seed packaging to maintain the seed life.

PMN staff attempted to source foil seed packets to replace the paper packets currently in use. In previous years the Seed Savers Network in Australia had provided these packets and they were used successfully for some time and allowed seed to remain viable for longer period after distribution. These packets cost SBD$0.80-$1.00 each and were generally freighted free of charge. The service is no longer available.

A number of attempts were made to contact commercial suppliers in Australia to arrange alternative custom made seed packets with a foil lining, but the suppliers were not interested in the low volumes requested—a minimum order of 100,000 packets which would represent more than 10 years supply at current seed production rates.

PMN staff are currently making enquiries with other suppliers including one in India that appears promising. At present they have continued to use paper seed packets with ongoing concern about the viability of the seeds once they leave the seed bank dry storage facilities.

With the delay in solving the packaging problem, instead the focus by PMN has been on improving distribution systems so that seed reaches members more rapidly (seed viability in paper packets declines with time). This seems to be working, with member surveys of a sample of members show a change in those who report seed as being of 'good' quality from 13 percent in 2009 to 33 percent in 2011. Similarly, the number who report seed quality as poor has dropped from 17 percent in 2009 to 11 percent in 2011. There remains considerable room for improvement.

Improve the value of PMN membership

Seed distribution to members is reported to have increased. The database shows growth but recording is still quite poor. A newsletter was sent out to all members in early 2012.

Consultation and training with members

A PMN members conference was held from the 11-13 November in 2009, and another is planned for 2012.

Localize and increase seed production

KGA is half way into a five year program to build the capacity of ten key rural farmer organisations in order to decentralize service provision to local based groups. These organisations are called 'partners'.

PMN chose to train each of the ten key KGA partner organisations in seed production and assist them to establish a seed production garden and distribution system. These partners have been selected from the 187 organisational members as key service providers for PMN members in their areas.

The model used was:

- training of a 'seed curator', who was selected by the partner farmers organization to be the person responsible for seed production
- follow up visits were made to assist in establishing seed gardens
- there was no supply of storage buckets and equipment to the partners.

Partners were provided with some funding to produce seeds as part of their funding agreements with KGA under the umbrella core funding program of AusAID.

Four partners out of the ten appear to be succeeding:

- Rokotanikeni Womens Association has established five seed gardens; they made a distribution of seed to their members in 2011
- in Makira an active individual, Dick Elija, established a seed garden and distributed seed in his local area and sent some seeds back to the PMN: tomato, beans, eggplant; it appears to have worked because he had an incentive through an individual contract
- Masilana seed centre, located in a remote highlands area of Malaita; trials have been made, some open pollinated Chinese cabbage seeds sold and the lead farmer Johnson Ladota is keen to continue; Masilana is associated with the partner, Baetolau Farmers Association
- a third farmer organisation, Vuranini Community Based Training Centre, has reportedly just started a seed garden and there are promising signs that it may be successful.

The reasons reported for failure of the other seed centres are:

- the wrong person was trained
- lack of commitment by the farmer organisation to seed production
- challenges with selection of people for training.; for example, there was not a clear process for defining what their motivation and why are they should be chosen
- clear incentives to caretake crop genetic resources were also poorly defined by the partners or PMN trainers.

Given the typical long timeframes involved in the capacity building of farmer organisations in the Solomon Islands, this is quite a promising result to date.

Germplasm centres

Distribution of sweet potato and African yam varieties has been made through farmer-managed germplasm centres.

In 2010, PMN started to record in its database when it sends material to the germplasm centres for multiplication. There are 88 records of this occurring. This was only a small fraction of the total but for the rest there are no detailed records.

At present there is not an easy way to estimate the distribution.

Seed Curator Rita Amiki working in the PMN seed bank.

Expand commercial sales

During the period from July—September, sale of seeds and seedling to nonmembers was averaging only SBD$140 per month. This is considerably below the level that would be needed to make any meaningful contribution to financial sustainability of PMN.

As a lot of seed was also sent to members it is unclear if there would have been enough seed for additional sales if demand had been higher. No marketing or advertising was done to drive further growth in seed sales.

Incentivise partners to service and grow the PMN

KGA and its partners had slowly drifted away from servicing PMN members. This has provided a disincentive to becoming a member and maintaining subscriptions.

Over the past 12 months there has been a concerted effort to reorient service provision to PMN members. All activities implemented by KGA are, in theory, for PMN members only. Nonmembers who wish to attend are able to join on the spot by paying their membership fee.

All KGA activities are now asked to complete participant lists that also record the PMN membership number of each attendee. These records are being progressively added to the database.

Maximize Information opportunities

The business plan envisioned the use of new seed packets to share information on seed saving and the Network. This has not occurred yet although it is part of the planned design for new seed packets that are being ordered from India.

The business plan also suggested research into use of SMS and other mobile phone technologies for sending information to members. Some early research and testing of service providers for SMS broadcasting has been done. A trial was made of SMS messages to a small sample of members, with positive results. PMN is now planning how to collect mobile numbers from members.

Solomon islands rural phone ownership is increasing very rapidly with the recent removal of a monopoly and increased competition, better rural coverage and reduced prices.

Maximize income opportunities for farmers

The income-increasing potential of PMN comes through members use of planting materials for commercial production. Sale of fresh vegetables is a very important source of income, however the evidence base on increased yields or other income earning aspects of PMN promoted varieties is not there.

It is also difficult to put a value on the public good functions of conservation of valuable plant genetic resources for farmers.

Customer service

This area has improved with:

- four rural-based farmer organisation partners now distributing seeds and newsletters—taking access to services closer to the members in those areas
- more members receiving seeds and newsletters than previously
- training provided by KGA is now reaching members more effectively, ie. services are being targeted to partners.

Survey forms show increased satisfaction by members and more members receiving services.

At the Burns Creek service centre, new customer service signs are up.

There remains a gap in the need for better customer service training for staff who interact with members at the centre.

Future plans

1. Continue to increase PMN income through increased seed sales and membership fee collections.
2. Investigate the return on expanded seedling sales.
3. The upcoming PMN conference in 2012 will provide the opportunity to discuss changes in membership fees and incentives with members.
4. Customer service training for PMN and KGA staff who interact with members at Burns Creek centre.
5. Improve the evidence base through documented trials and research into PMN varieties and their comparative benefits.
6. Survey of all PMN farmer organisation members to better understand their situation and needs.
7. Awareness and more training for members on basic seed handling as was envisaged in the business plan but is yet to take place.

Key lessons and recommendations—how can we improve?

1. Better analysis of decision making processes and who needs be involved and have ownership in order to implement the business plan.
2. A timetable of implementation with clear targets so that progress against the plan could be more easily tracked—and adjusted if need be.
3. Putting a value on the public good functions of PMN would help to justify longer term donor support for a portion of its budget.
4. Seed production equipment needs to be supplied to partners who do proceed with rural based seed production
5. Exploring incentives for seed production, seed and newsletter distribution to members, seed sales and collection of membership fees and testing models.
6. Little financial analysis was done on the costs of services provided by PMN through different means and how this could be made more effective. Similarly, more analysis is needed on the potential of different income sources—eg. is it worth continuing with seedling sales and how does it compare with seed packet sales?
7. Clarify incentives along the planting material supply chain and better define interventions using this information.
8. Technical capacity building on germplasm management could see PMN able to step up in its support through global efforts for PGR conservation or through SIG partnerships.

Planting Material Network

Works	Doesn't work
Provided practical services for small scale farmers—seeds, planting materials, information	
	Difficult transition to business mindset for services provided by NGO for largely subsistence farmers
Need more independence	Complicated decision making that does not reward incentive or increased sales
Strengthening farmer-based self-reliance and local sharing and trade networks	Challenge of business model for important services with wide social benefit —eg. conservation of crop genetic resources
Charging for training services	
Selling seedling but income very modest—potential to grow	Collecting subsciptions using conventional models from remote members
	Posting of newsletters into postal service that barely reaches rural areas
Partners need incentives to collect fees and service members	

References

Jansen 2002, *Hidden Taro, Hidden Talents: A study of on-farm conservation of colocasia esculenta (taro) in Solomon Islands*. Kastom Gaden Association.

Summary

For the first time KGA has set targets for the growth of the Planting Materials Network (PMN) network and included these targets in its monitoring system. It has also committed itself to better serving members through improved targeting of its activities and ensuring that nonmembers are not given preference over members.

PMN membership has grown from 1800 to 3000 during the period of the project.

KGA now has a system to track participation of members in KGA supported activities—which currently is at 35%.

Note

See Attachment 2 for varieties available from PMN

4 Farmer organisations and the market in Melanesia–Kastom Garden Association (KGA)

Introduction

This case study is about one of the larger NGO and one of few farmer organizations in the Solomon Islands, the Kastom Gaden Association. The focus of the paper is on KGA's efforts to strengthen its own business model in order to continue to provide and improve the sustainability of services for rural farmers.

KGA has a history of practical action providing various extension services reaching small farmers in the Melanesian nation of Solomon Islands.

These include:

- provision and conservation of agrobiodiversity
- organic farming approaches
- agroforestry
- small scale livestock systems.
- More recently, KGA has improved its ability to assist farmer members with marketing and organisational strengthening of small farmer groups.

This paper examines how KGA has grown and what business model and approach it has taken in the past and is now moving towards.

The FAO project

This series of case studies is part of an FAO project under the EU AAACP (all ACP Agriculture Commodities Program).

The objective of the project is to improve the livelihoods of producers in commodity-dependent ACP countries and the focus of the FAO component has been to improve the capacity of farmers organisations to participate effectively in rapidly changing markets and provide quality services to their members.

Initially activities in the Pacific region were implemented in collaboration with the Melanesia Farmers First Network (MFFN). When Oxfam funding to the MFFN ended the organization was unable to complete some of the work and support activities envisaged in the FAO partnership. The Fiji-based Natures Way Cooperative partially filled this gap and assisted with the coordination of two regional meetings. The project spanned October 2008 to the end of 2011.

This series of five case studies in Melanesia has been produced by TerraCircle Inc to document the experiences of the project in supporting farmer organizations and their market linkage work with small farmers. The case studies were produced through a mix of field work, interviews, and the authors own experiences and knowledge based on working with these Farmer Organisations over recent years.

The case studies are detailed in sections:

a. farmers' organisation business model
b. critical success factors
c. results of the intervention
d. the upgraded business model
e. future plans
f. lessons learned.

a. Farmers organisation business model

Kastom Gaden Association (KGA), is a national farmers organization (or NGO, as the title 'farmers organization' is not commonly used in Solomon Islands) whose mission is to:

Strengthen village-based food security in Solomon Islands using participatory, practical, grass-roots approaches that enable village people to examine, understand and develop their own solutions to improving household food security and village-based agriculture economy.

Recently, the KGA board of trustees adopted a vision of:

A future of healthy soils that yield healthy food for a healthy nation.[7]

Starting as a small but innovative initiative of Australian NGO APACE (Appropriate Technology for Community and Environment), and since 2000 as a registered Solomon Island NGO, KGA has engaged with growing numbers of farmers since 1993.

After 2000, during a period of civil unrest and the post-conflict reconstruction from 2003 onwards, the availability of donor funds for local NGOs conducting rural livelihood and food security initiatives increased substantially. This was due to an increased recognition of the importance of strong rural livelihoods for resilience, and a lack of government capacity to provide those services (see for example the AusAID Small Holder Agriculture Study [8])

KGA was one of very few indigenous organizations with the experience and capacity to respond. KGA has built it's reputation through its training programs in key areas of agriculture and nutritional health. It has good governance, is well managed by dedicated staff, maintains a sound relationship with the government of the Solomon Islands and many other agencies and organisations.

Based on its earlier work, KGA experienced a period of growth that was quite rapid in the initial years (see table below for analysis). The organisation's range and scale of projects, number of staff and total operational budget have all increased.

At times, KGA has been the only organization in the Solomon Islands providing information to farmers about food crops and sustainable production.

7 http://www.ausaid.gov.au/publications/pubout.cfm?ID=4088_5412_1071_6193_2813

8 http://www.ausaid.gov.au/publications/pubout.cfm?ID=4088_5412_1071_6193_2813

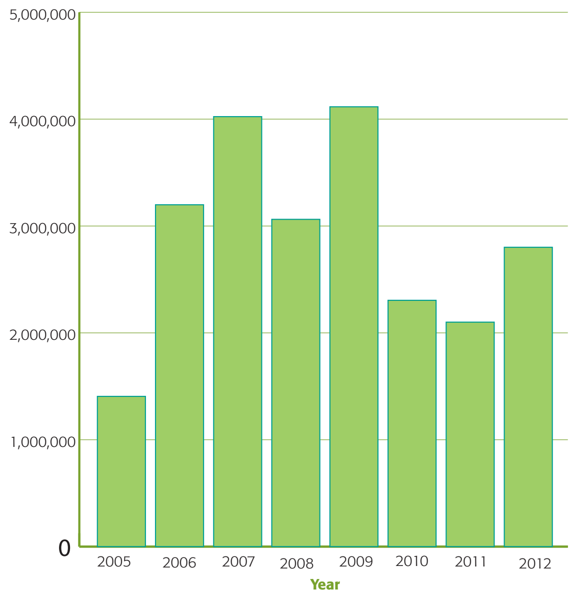
Support and funding–advantages and potential difficulties

KGA is donor-funded and as such faces the risk of collapse should donor funding cease. Dependence on donor funding may also threaten an organisation's autonomy and weaken its legitimacy (Guler 2008). Some donors, as well as the emergence of more market based approaches, are increasingly questioning of the sustainability of donor funded services for farmers such as that provided by KGA.

KGA has been encouraged to explore options for sustainability. There was a perception in the organisation and among some donors that KGA had grown unsustainably. However, in Melanesia there is a very high level of aid dependency in both the government and non-government sectors. For this reason it is unclear what a sustainable service provider for agriculture extension focused on food security would look like in Solomon Islands or indeed in the rest of Melanesia.

KGA has receive support from several donors and international NGOs, principally: AusAID, ACIAR, EU, ICCO, ACIAR, FAO, APHEDA, SPC, JAICA and Oxfam. In the process has established partnerships with community-based organizations, the Solomon Islands Government ministries of agriculture, education and health, and churches.

Table: Total donor funding to KGA (in Solomon Island dollars) from 2005 to 2012



Note Solomon Islands $1 = USD$0.135.

Expansion

KGA experienced a rapid expansion in its program from 2005 to 2007, growing from an annual budget of less than $1.5 million to over $4 million Solomon dollars per year. Since then, financial resources have reduced slightly.

Interestingly, the expected funding for 2012 of $2.8 million is close to the eight year average of $2.87 million. This is contrary to perceptions both within and outside the organization that a recent core funding agreement (explained later) represents a substantial increase of overall funding to KGA. The projected income for 2012 is in fact a 30 percent reduction from the organizations peak funding level in 2009. This is probably a fairly realistic and sustainable level of operations given KGA's demonstrated capacity at this scale and in the current donor environment.

An indigenous farmer organisation providing services can access donor funding in the following ways:

- through partnerships with an International NGO based in the donors country—in this case that is usually Australia—often with the international NGO sourcing donor funds
- through direct funding from the donor; this is not common but KGA has, unusually and significantly, managed to secure direct funding support from AusAID, the result of many years of advocacy and based on its proven track record
- through regional, multi-country organizations such as SPC which are themselves funded by donors
- through multilateral organizations—generally, these funds are channeled through the government, in this case the Solomon Islands Ministry of Agriculture
- through contracting companies who implement aid projects that are part of bilateral agreements between the donor and the Solomon Islands government; GRM, Hassals and Associates and SKM are some of the contractor companies present in Solomon Island who have implemented AusAID projects in the agriculture or resource management sectors.

Each type of relationship has its advantages and disadvantages and these can change over time depending on the capacity of the farmer organisation. For example, in KGA's case it was beneficial to have partnerships with Australian NGOs such as Oxfam and APHEDA in earlier years as these organizations provided capacity building support and were more adaptable and responsive in their understanding of indigenous NGOs and the local context. As the program grew, KGA desired direct donor partnerships in order to scale up its program and developed the capacity to manage and service a direct relationship with donors.

b. Critical success factors

KGA has developed two strategic plans, the first covering 1997 to 2000—much of which was achieved—and a more recent 2010-2014 plan. A long interim period of project-driven growth was not guided by a strategic plan. The result was that the organisation became increasingly donor and project driven through responding opportunistically to increased donor interest in the livelihood sector.

KGA promotes farmer to farmer extension. Here lead farmers are teaching others how how to use a legume tree - gliricidia - to improve soil fertility for staple food crops.

KGA launched an organisational review in 2007 that resulted in changes in the organisation's structure and a reorientation towards building partner capacity with selected rural-based farmer organisations for delivering the core services of KGA to local farmers. It also enabled the organisation to better define a holistic livelihoods approach.

The new organisational structure removed the approach of recruiting short term project-based teams and instead focused on providing the necessary personnel for core service delivery and ensuring that donor projects helped support these core services.

In support of this change, and in response to changing donor trends in how they engage with civil society organizations, KGA received the first part of a core funding grant from AusAID in 2009. There were substantial ongoing negotiations that were only finalized in 2011, but in total there is a five year period of support up until 2014. This will allow the organisation to focus on building institutional capacity to deliver this new program as well as local farmer organisation orientation. The FAO support for capacity building in value chains and in exploring business models has contributed to this process.

In terms of sustainability of income sources for the organization, the current KGA corporate plan (2010-2014) identifies the following objective:

Increase and maintain members' ownership of KGA in ways that show the members a 'return on their investment'.

- select and develop best income-generating options for KGA, including user-pays policies.
- develop an income-generating strategy and implementation structure(s) for KGA.

KGA's reality is that it is a donor-dependent organization that provides services to largely remote and small scale farmers, many of whom are on the margins of the cash economy. There has been no private sector interest in providing these types of services to remote communities. In essence this makes KGA services more of a social benefit type and there is little potential for profit-based services to replace those provided by KGA, given the logistical challenges and costs involved in a very remote and geographically dispersed country with little infrastructure.

This type of donor dependence is not unlike many other civil society organizations in developing countries.

A strategy for organisations that stay in the aid system, which KGA intends to do, is to diversify their donors. Although this will reduce vulnerability and may increase independence, the negative side is increased costs in time, reporting and administration– ie. the need for strong management. There is also potential to become diverted from core aims and objectives in the pursuit of funding opportunities, something that KGA has already experienced to some extent.

NGOs such as KGA can also look for alternative sources of income to official aid. These can include:

- local fund raising
- external financing
- income generating activities.

c. Results and experiences

Regional meetings

Senior KGA staff attended all three regional meetings (an value chain introduction workshop, a agribusiness training course and a 'final lessons learned' workshop) under the EUAAACP project.

Unfortunately, due to staff changes and commitments, different people attended different meetings and the learning was not always shared widely enough in the organization. However, it has contributed to a changed understanding of how best to support improved market access by small farmers and, more recently, increasing confidence in developing and explaining a business model for the organisation itself.

Action plan for KGA capacity building in value chain analysis and development methods

KGA signed two contracts with FAO for activities under the project to support various capacity building activities. An action plan was developed by a consultant and is being progressively implemented through the new marketing and value adding component of the organisation (see box on previous page).

KGA is making progress on the plan. In the case of the Farmer Fresh marketing operation KGA decided to exit the enterprise, while in other areas skills are being built for the agency to act as a facilitator in value chain development rather than engage in direct intervention.

Action Plan for business model upgrading developed by KGA

- Train the KGA PSO staff in value chain methods
  - » determine intervention points of entry to improve market access
  - » build KGA staff capacity to support the growth of new market locations, support farmers' access to rapidly growing existing markets, and to increase the currently very low level of general commercial knowledge among the general population.
  - » improve farmers' understanding of market mechanisms.
- Create a new urban, Honiara-based network of fruit and vegetable producers (any producer that can access the Honiara Central Market with fresh perishable produce), involving other local NGOs and service organizations, offering producers and buyers training in planting, harvesting, post-harvest handling, accessing the market, negotiating, value chain awareness and value added processing.
  - » create a network of producer/buyer relationships and offer a safe and reliable resource for networking meetings so buyers and producers can establish contact; this is a particularly sensitive issue as there is little tradition of marketers, traders and other middle men in Solomon Islands society, the introduction of cocoa in the 1980s was the first experience many rural Solomon Islanders had with traders.
- Reestablish Farmer Fresh as a viable, profitable buyer of this network's fresh fruit and vegetable.
  - » develop retail and wholesale businesses delivering fresh fruit and vegetable, processed foods and specialty/hard to source foods
  - » develop producer and trader relationships to supply fresh produce and conduct training and networking sessions centred around Farmer Fresh
  - » long term focus is to support producers in the rural areas as transport links improve and KGA farmers and partners develop stronger market oriented production efforts.
- Create an IFOAM PGS organic effort for the Solomon Islands for producers, traders and end buyers.
  - » use Farmer Fresh as the initial leading edge of this new PGS network, offering KGA the opportunity to brand the organic standard in the Solomon Islands.
- Create a menu of business opportunities for KGA farmers and partners to pursue.
  - » connecting to the Farmer Fresh network
  - » linking to local, regional and central markets
  - » supporting their access to national commodity export efforts in cocoa, virgin coconut oil and any other programs that may be introduced
  - » providing food processing training.

d. Improved business model

KGA was able to finalise five years of core funding support from AusAID that supported core and operational functions of the organization. It provided a breathing space for KGA to better plan its future directions and organisational sustainability. It does, however, concentrate a large proportion of KGA funding with a single donor.

Other donors are continuing to support KGA (EU, and UNDP in 2012). An AusAID 2011 review of the core funding suggested that the level of diversification of donor funding of KGA would be an indicator of sustainability of the organization. AusAID is concerned that KGA does not become solely dependant on AusAID support. This is a valid concern as the proportion of dependence on a single project has increased for KGA to 90 percent in 2011 although there is already evidence that KGA will diversify effectively from 2012 onwards.

A new business model

KGA has explored options based on the directions identified in its strategic plan.

Analysis of income generating opportunities has shown potential for some key services to earn a modest level of their own income. Overall though, there is little potential for KGA to move away from its reliance on donor funding and even earning 10 percent of its current budget from non-donor sources would be optimistic. Its business model, therefore, is to be effective in sourcing continued donor funding and managing these funds effectively in order to achieve outputs, but also to sustain core needs and functions of the organisation for the long term.

KGA currently generates income through:

- membership fees for the Planting Material network
- sale of seeds, planting materials and seedlings
- the operation of a small model poultry farm at the Burns Creek centre in Honiara.

Income from memberships, seed and seedling sales was found to have potential to support a sustainable planting material service with careful planning and more of a business model approach to the seed supply services. This is discussed in greater detail in the PMN case study in this series.

Similarly KGA's earlier expectation that its fledgling marketing arm, Farmer Fresh, might earn income that could cross-subsidise services to members proved unrealistic. Farmer Fresh struggled to even cover its own costs, let alone earn significant profit for the organisation. KGA made an attempt to outsource the operation to the private sector, the result being that a private sector operator found the business model unprofitable. KGA has recently decided to close down this operation—this is covered in more detail in another case study.

Income from the KGA poultry farm is negligible and does not even cover staff time involved. It would take a very large commercial poultry operation to even contribute 2-5 percent of KGA's current budget, and running such an operation is not seen as being part of KGA's core business and in fact would detract from it as core business is focused more on information and research to improve small scale livestock systems of members.

It is recognised that, in all likelihood, donor funding to Solomon Islands will continue to be a viable source of income for many years. At some point there may be opportunities for government funding although at present this is considered unlikely as government itself is dependent on donors for much of its budget.

A concept note was developed by KGAs manager at the Nadi 2011 regional meeting that articulates a clearer focus on being a professional and effective aid organization providing services to farmers.

Key indicators of success were identified as:

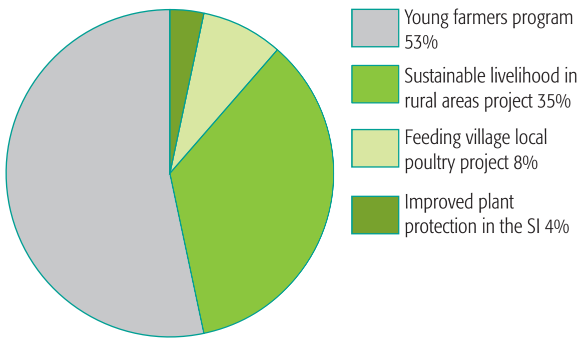
- the level of funding
- the number of different donors combined with the overall impact and effectiveness of its services to the small farmer sector.

The number of donors is a trade off: a higher number of donors reduces risk of losing all funding for the organisation but increases the management and other resources required for servicing donor information and other needs.

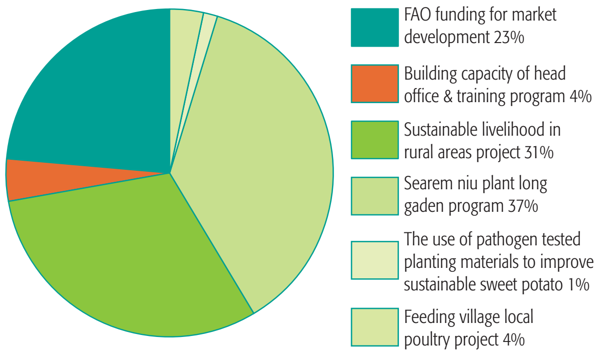
Donor diversification.

An analysis was made of KGA income for the last seven years. The tables presented below show the changing composition of project funding to KGA over the period 2005 to 2011, with 2012 as an estimate.

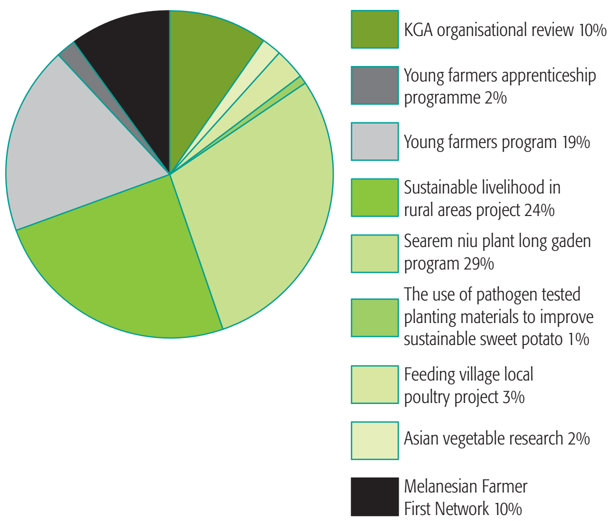
2005: Total Funding $1.4 million



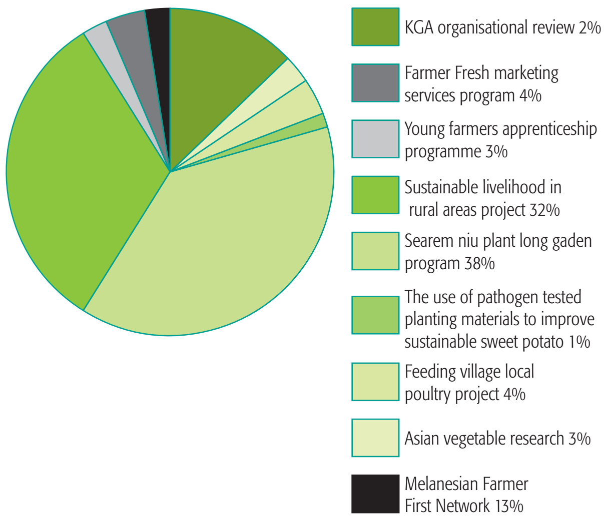
2006: Total Funding $3.2 million



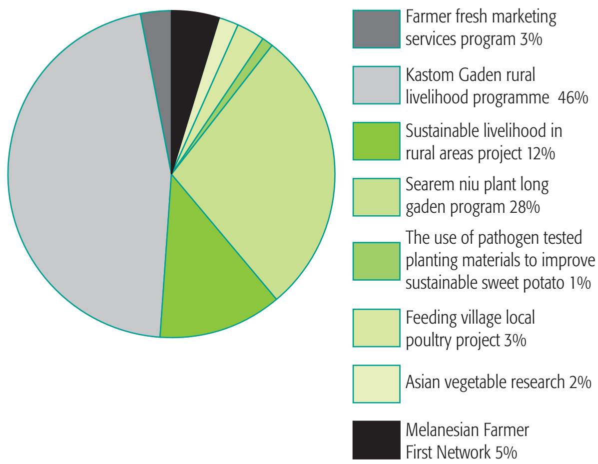
2007: Total Funding $4 million



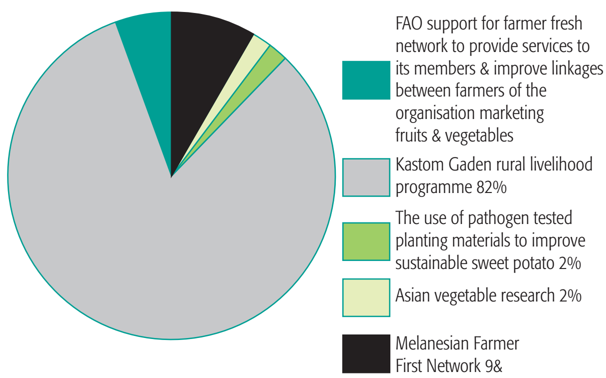
2008: Total Funding 3 million



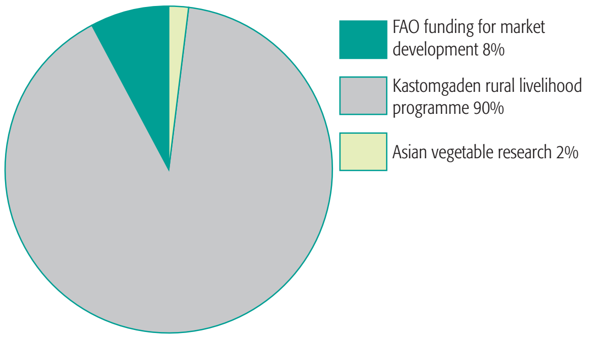
2009: Total Funding $4.1 million



2010: Total Funding $2.3 million



2011: Total Funding $2.1 million



2012: Expected total funding: $2.8 million

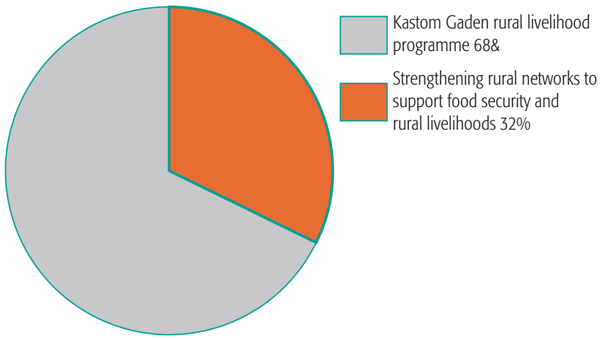
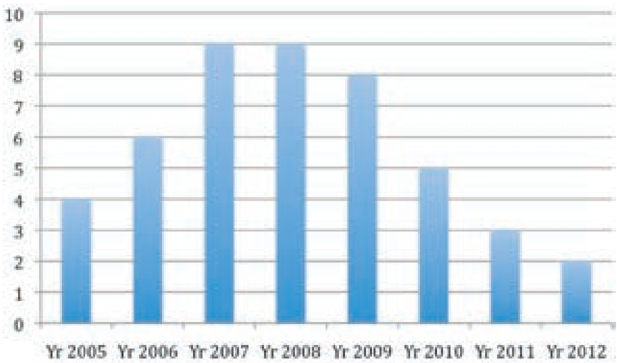


Table: Number of different projects with separate funding agreements per year



The analysis shows that donor diversification has averaged a total of six projects in a given year. In 2011 there were only three projects, which was below average. 2012 is estimated at two, but there are other projects potentials such as KGA participation in a SIG/UNDP climate change adaptation project, so this total is likely to increase to three or four with the core funding reducing from 90 percent to under 70 percent.

In summary, KGA has been able to initially grow and then sustain its program, and in recent years has focused more on a smaller number of larger scale projects. This has been more effective in reducing management costs and allowing the organization to focus on core business, but may also increase vulnerability. An optimum number of donor funded projects and target income per year is something that KGA will need to define.

The concept note did identify the possibility of KGA providing consultancy services to earn income. This appears more promising than agriculture enterprise-based types of income. For example, in 2011 KGA provided consultancy services to WWF to conduct a food security assessment in part of the Western Province.

KGA has, since 2011, reinstated a system of charging administration and management fees to projects. These charges to donor projects are held in a trust fund which then provides for the administrative functions of the organization. With careful management the trust fund can accumulate a surplus which can then be used, under board supervision, to further the aims of the organisation outside of donor funded frameworks. A large trust fund provides the organisation with a buffer in the event of a donor withdrawing or ending support and also allows the KGA to support important core activities that are not donor funded at a particular time. In effect, this has similarity to the business model of private contractor companies that implement bilateral aid projects.

e. The future

Vision—During the period of this plan, it is the BoT's intention to generate at least $10,000 and as much as $100,000 annually in general revenue within the nation and within the membership (through fundraising, dues, etc.) so as to begin to cover the basic core costs of KGA. Our core costs, in order of priority are: A place for the Board to meet, to keep its records, to communicate with stakeholders and to tell members what is happening, as well as to plan and organise activities/programs that will attract funding from outside (government, bilateral donors, regional and international organisations, international non-profits, commercial entities, etc.).

The following are steps that KGA plans to take to implement this vision and which are part of the new business model:

1. Develop a strategy for donor diversification. Refine the methods of charging for services provided to projects.
2. Maintain a core business approach that is not donor led and that does not endeavour to run farming enterprises. Seek partnerships with farmers and the private sector where demonstration sites and models are needed.
3. Articulate its business and strategic plans to donors and partners.
4. Develop and implement the Planting Material Network business plan for seed production services to become increasingly self financing.

Future plans from the board of management

Within the marketing component this strategy has been developed:

- KGA intends to act as an agent and not an active principle in any business. KGA's core skills are not in the private sector or in business management. But there is a need to develop sustainable income sources for KGA in the long term.
- To this end, KGA intends to be paid for its efforts in business development by receiving dividends that will go to supporting KGA's non-profit initiatives. It is hoped that this will create a circular system of successful businesses that in turn fund further rural development by KGA.

f. Lessons learned

The table below summarises the lessons documented in this case study and in KGA's evolving business model.

A key learning for KGA was to accept and strengthen what it was already doing– providing services to small farmers through partnerships with support organizations and sources of funding. It can carry this out in a more business-minded way with efforts to build sustainability through donor diversification and careful management of its income to ensure that long term core needs of the organisation are met. Income generation through agriculture based trade and services is often better left to the private sector with KGA playing a facilitative role, although there are opportunities for some cost recovery for more profitable services such as seed production and distribution.

What works	What doesn't work
A 'service provider' business model—seeing the sourcing and implementing of aid projects as a business	A service provider organisation trying to run farming or other market based enterprises in order to earn income to provide its services to farmers. The two tend to detract from each other and often moves the organisation away from its area of expertise.
Core funding and regular organisational reflection, which have allowed KGA to focus on servicing the needs of members in the best way possible	Making direct interventions in the market chain such as that of Farmer Fresh. These should be a last resort.
Partnerships—working with local farmer groups and organisations and building their ability to become service providers	Trying to build or change an organisations business models without involving the board of management from the beginning.
Being a facilitator of change in the market chain—building analytical/ participatory analysis skills and training packages to support this	Lack of consistency in attendance at regional training and experience sharing meetings.
Building skills and capacity for long term approaches to strengthening market chains for small farmers' benefit	

The challenge or KGA is to build on what has been achieved and to use this as a basis for new ventures.

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Summary

From dependence on an Australian NGO to independence as a Solomon Islands agency, the Kastom Gaden Association has overcome challenges to maintain a continuity of service and assistance to Solomon Island farmers.

The agency's future depends on developing new funding sources and building on what it has already achieved.

5 Farmer fresh

Introduction

Farmer Fresh is one of a series of case studies making up part of the FAO project under the EU AAACP program.

The objective of the program is to improve the livelihoods of producers in commodity-dependent ACP countries, with the focus of the FAO component being to enhance the capacity of farmers organisations to participate in rapidly changing markets while providing quality services to their members.

Activities in the Pacific region were coordinated by the Melanesia Farmers First Network (MFFN). When Oxfam funding to the MFFN ended the organization was unable to complete some of the work and support activities envisaged in the FAO partnership. The project spanned October 2008 to the end of 2010.

This series of five Melanesian case studies has been produced by TerraCircle Inc to document the experience of the project in supporting farmer organisations and their market links to small farmers. The studies were developed through fieldwork, interviews and documentation of the authors' own experiences in working with farmer organisations over recent years.

The case studies are detailed in sections:

a. farmers' organisation business model
b. critical success factors
c. results of the intervention
d. the upgraded business model
e. future plans
f. lessons learned.

a. The business model

History

Pioneer of a new business model in the Solomon Islands, Farmer Fresh sought to connect village farmers with urban markets and in doing so demonstrated agility and adaptation to changing circumstances that were beyond its control.

Farmer Fresh was established in 2005 with the aim of providing members of the KGA-supported Planting Material Network with a market for their fresh, organic produce.

A difficulty for Solomon Island farmers is that they are forced to travel from the village direct to the Solomon Islands capital, Honiara, to sell small quantities of produce. A barrier to doing this is the return on effort in the form of high transport and travel costs. For participating farmers, Farmer Fresh would reduce both the effort and costs in accessing urban markets.

A secondary objective was to incubate small food processing businesses by taking the risk out of product and market development. The national NGO, Kastom Gaden Association (KGA) had taken on the development of Farmer Fresh following numerous requests from farmer members of the Planting Materials Network at national farmer conferences.

By 2007 Farmer Fresh had developed the enterprise to a scale at which it had an annual turnover of $113,000 with gross profit of 12.8 percent. At that time a total of 23 customers subscribed to the weekly basket of fresh food.

Adaptability overcomes challenges

Venture capital for Farmer Fresh came from the British High Commission, however the funds were tied to a more complex project that involved setting up a green waste recycling centre and the edible landscaping of an adjacent sports centre with food bearing plants. This was to be the 'Rainbow Centre'.

The payoff for these unexpected diversions was to be a custom built facility on site, where Farmer Fresh would have a coolroom, processing facility and a retail shopfront integrated into the new city sports complex. Unfortunately, the Rainbow Centre project collapsed for reasons beyond the control of Farmer Fresh.

A large portion of the time of an experienced Australian volunteer was consumed in the construction of the Rainbow Centre. Much effort went into developing systems and into planning for the processing of produce for the weekly food baskets at the Rainbow Centre. With few alternative options, Farmer Fresh moved its operations to the residence of the Australian volunteer until the end of 2006. At its peak there were 30 weekly customers purchasing the mixed basket of produce.

Eventually, Farmer Fresh moved into a temporary shed on the Rainbow Centre site at Lawson Tama that was to have been an office of a green waste recycling operation. At this time, Farmer Fresh made contact with farmers at Aruligo, 20 or so kilometers west of Honiara, and arranged to purchase produce from them. Farmer Fresh dropped off containers for the produce and every Tuesday the farmers would bring trays packed with the agreed types of produce for purchase. While the operation was based at the volunteers accommodation at White River, some farmers would come to sell their produce. Later, Farmer Fresh used its truck to collect produce from the village.

In 2007 the operation was forced to move out of Lawson Tama as a somewhat complex dispute over the Rainbow Centre escalated. Farmer Fresh moved to the Kastom Gaden Association office and gardens at Burns Creek at the other end of Honiara. Here, staff found it difficult to operate because they were often diverted from their work through being part of a busy NGO office. Eventually, the Farmer Fresh truck broke down, partly because of being overused in servicing KGA rather than focusing on the business.

Also in 2007, a short-term Australian Business Volunteer with agribusiness experience was recruited by KGA. He made a survey and used focus group discussions to confirm that there was market opportunity and that the business appeared viable. An updated business plan was developed that aimed to increase income to $141,000 by the end of 2007 and increase profit to 18.5 percent. It planned to do this by developing wholesale customers in the hospitality sector (hotels and restaurants) as well as continuing with servicing the home delivery market. The plan projected growth in sales from $750 per month to over $10,000 per month.

Key constraints identified in the plan were lack of space for storage and packing and the need for a full time Farmer Fresh manager who was not also carrying out other KGA duties and so could concentrate on the business.

Buying negotiations difficult

> *'We tried to explain that they would not need to spend time in the market selling—they could just sell direct to Farmer Fresh. But in the end the farmers did not agree on the price'.*
>
> *(Nancy Malu – farmer fresh manager)*

Lead farmers led negotiations on prices and what farmers found unusual was that Farmer Fresh bought by the kilogram—an unusual practice as fresh produce is sold in 'heaps' and 'bundles' in the markets and rarely weighed. Unfortunately, some of the farmers could not come to agreement on prices, claiming that direct selling at the market would earn them more.

The agreement with Farmer Fresh included the provision of produce containers for transporting the produce, and payment of a freight component. At its peak, around 20 farmers were supplying Farmer Fresh, however participation declined.

Decline stemmed from the notion that prices were unreasonable. Farmer Fresh explained their own cost structure and why they paid less than prices earned at the market, however farmers were unable to calculate accumulating costs like market fee and transportation because of their poor financial literacy. Farmer Fresh operated for about six months in this way.

Should have tried selective buying

According to Farmer Fresh manager, Nancy Malu, it would have been better to specifically target farmers willing to trade with the business. Nancy would request farmers to grow specific crops based on demand, however they would sometimes bring produce they did not really want but which they would insist on selling, and so Farmer Fresh would buy it and then attempt to resell themselves, often at a loss.

Seeking to establish and grow the business, numerous farmer groups were contacted on Guadalcanal and Malaita in the period between 2006 and 2010. Meetings were held to discuss Farmer Fresh and to educate farmers about the opportunities it offered.

This was tried at Foxwood with a farmer who supplied melon and pawpaw. Farmer Fresh also bought from a farmer group in a bush are above CDC3. They supplied beans, tomato and pumpkin.

There were attempts to source produce from other islands, and a lead farmer on Kolombangara, Frank Lave, would send fruit—mainly pomelo and sometimes avocado.

A risk was the failure to deliver specific product and when this occurred, and when Farmer Fresh could not source replacement produce in the markets, customers were disappointed. Customers were interested in vegetables and fruits but wanted other products as well.

At its peak, Farmer Fresh supplied up to 30 weekly boxes of fresh food. The lowest point of delivery saw only 16 boxes a week.

Business viability unclear

Unreliability of supply by farmers was the biggest challenge face by Farmer Fresh according to Manager, Nancy Malu, and it eventually became apparent that the only reliable source of produce to meet customer demand was the main market.

Also creating difficulty in monitoring the business was the separation of financial and operations management, although Nancy thought Farmer Fresh was profitable.

Building confidence with farmers was a key focus, however although Farmer Fresh was established and was ready to grow, when the business stopped and started a number of times it contributed to a lack of farmer confidence in its future.

Farmer Fresh explored the potential to supply the hospitality industry that had been identified as a market opportunity in the business plan. Popular Honiara cafes—El Shadai and Lime Lounge—already had their own suppliers, however they were interested in processed food products like those made by Jedom, such as dried fruits and muesli. The King Solomon and other hotels visited were concerned about reliability of supply.

After the Farmer Fresh vehicle broke down, the business had to pay for the use of the KGA truck for deliveries and the business retained profitability while doing this KGA, though, insisted on a higher rate.

Farmer Fresh went through a number of staff changes. By the time Nancy resigned there was a total of 27 weekly food baskets.

In retrospect, it is clear that Farmer Fresh would have benefited from improved business procedures. There were too many people involved in decision making which lacked the freedom needed by a small, innovative business so as to take initiative.

The project

Support received

Funds from ICCO were used to outsource the Farmer Fresh operation to a private business, JEDOM.

In February 2010 the arrangement was terminated by KGA as the number of customers had dropped to only six, and it was felt that JEDOM had not been able to address the core issues and constraints related to Farmer Fresh.

During the period that KGA operated Farmer Fresh directly, customer numbers varied between 16 and 30.

b. The upgraded business model

A startup fund of $10,000 was supplied to JEDOM to assume control of Farmer Fresh. In 2010, ICCO funding of $SB107,000 was provided to Farmer Fresh of which $58,000 was direct operational support for the business and the balance used for training and support services to PMN members, including a contribution to a PMN farmers conference for planning purposes.

In 2010 Nancy Malu finished work at Lamana and she was approached about assisting with Farmer Fresh again with the aim of rebuilding the business. At the time there were around 20 customers, interested mainly in the processed products produced by JEDOM. Numbers interested in purchasing fresh produce had declined to as few as six.

For reasons that remain unclear, KGA resumed control of Farmer Fresh from JEDOM. It is probable that JEDOM found Farmer Fresh unprofitable. KGA offered Nancy a full time job at Farmer Fresh for the second time.

With a consultant assisting KGA, Nancy met with women involved in organizing tea groups at Tasahai and came back with a number of customers signed up to the Farmer Fresh service. This overcame the cash flow difficulties encountered in reestablishing the business. Focus now was on the operational side of Farmer Fresh, rather than on profitability. During this phase, customer numbers increased to around 20 on average and peaked at 30.

Will, the consultant to KGA, attempted to contract farmers to supply Farmer Fresh, educating them about what to plant, however farmers asked for seed for planting, which Farmer Fresh declined to provide a this was not in its operational ambit. At the time the business lacked any clear decision making process.

Support difficult to retain

Difficulties in gaining farmer support continued to act as a brake on Farmer Fresh.

Busurata farmers from Malaita delivered one time, however the second time they sent produce with John Sala who asked for his fare and other expenses to be reimbursed, including accommodation and food. This was not part of the agreement.

It was this kind of misunderstanding or assumption by farmers that was to prove common, yet Farmer Fresh felt socially obligated to cover these additional costs.

When the same group brought more produce they sold it in the market rather than selling it to Farmer Fresh.

Produce quality standards were to prove a problem with harvesting being done too early or produce being stored too long.

A Guale farmer living in a cooler area where he could grow cool climate vegetables like ball cabbage and celery showed interest but transportation was the challenge as the produce had to be carried to the lowlands. The damage resulting from transporting the produce outweighed the benefit of selling the vegetables.

Around three farmers from a farmer group at Henderson started supplying. They were working with AVRDC project and were asked to join the PMN. Others around Burns creek such as Peter Usi were among those supplying over half of the produce traded by Farmer Fresh at the time, however many were unwilling to accept the price paid by the business, demanding prices paid at the market.

Some of the Henderson farmers continues to deliver to Farmer Fresh as did Peter Usi and his group. They said they did not want to spend time sitting down at the market.

In the end KGA decided to close down the operation because of the few farmers benefiting from the operation and the challenges of growing the business successfully despite many attempts and a significant amount of organisational and donor resources.

c. Lessons learned

Lessons learned from the Farmer Fresh project include:

- targeting a single farmer group and working closely with them to educate them about the types of crops in demand produced to a minimum quality standard may be a more effective approach
- farmers are used to working in fixed ways—a more effective approach might be to target farmers who are more motivated to work with Farmer Fresh
- Farmer Fresh might get better results were it to employ people to grow its own produce.

Works	Doesn't work
Taking time to build relationships with farmers to increase trust and commitment	Collision of ideology and business models
Targeting the expat niche market although the full potential of this market remains unknown	Trying to use new farmer relationship to supply a start-up business
Buying produce in the main market to sustain supply	Unclear decision making, and lack of incentive for manager
NGO staff were good at farmer extension work and farmer relationships but lacked business skills	• Resources diverted by various donor funds and constraints stemming from donor relationships. • Unclear exit strategy by NGO • Lack of profitability due to low volume of fresh produce marketed • Slow financial reporting and disconnect between financial and business management
Processed products sold well when marketed with fresh produce when the business was run by JEDOM	No guarantee system for organic-marketed products
Outsourcing needed as well as more time and independence	• Too driven by ideology and not enough by profit. • Small scale of operation could not support vehicle and staffing overheads. • Ignored existing trader network

6 Jedom—value adding fruits and nuts in Solomon Islands

Introduction

Jedom—fruits and nuts value adding in Solomon Islands is one of a series of case studies making up part of the FAO project under the EU AAACP program.

The objective of the project is to improve the livelihoods of producers in commodity-dependent ACP countries and the focus of the FAO component has been to improve the capacity of farmers organisations to participate effectively in rapidly changing markets and provide quality services to their members.

Activities in the Pacific region were coordinated by the Melanesia Farmers First Network (MFFN). When Oxfam funding to the MFFN ended the organization was unable to complete some of the work and support activities envisaged in the FAO partnership. The project spanned October 2008 to the end of 2010.

This series of five case studies in Melanesia has been produced by TerraCircle Inc to document the experiences of the project in supporting farmer organizations and their market linkage work with small farmers. The case studies were produced through a mix of field work, interviews, and the authors own experiences and knowledge based on working with these Farmer Organisations over recent years.

The case studies are detailed in sections:

a. farmers' organisation business model
b. critical success factors
c. results of the intervention
d. the upgraded business model
e. future plans
f. lessons learned.

a. Farmers organisation business model

This case study is not about a typical farmers organization, not that many of the relatively few farmers organisations in Melanesia are typical.

Jedom, named for the initials of the first names of the family members of the founders, is a private business that includes social benefit as well as profit making objectives as its goals—what is known as a 'social business'. Its formation was loosely linked to activities of another farmers organisation but from the outset Jedom has been an independent private enterprise. The case study illustrates the potential and challenges of nurturing indigenous business development to benefit small farmers.

The distinction between farmers organization and private business can be somewhat unclear as shown in this case study of a social business. Jedom and the non-profit farmers organisation, Kastom Gaden Association (KGA), have a long history that goes back to the beginning of Jedom in 2005. The two organisations have followed independent paths that only occasionally cross, such as has occurred through the AAACP project. By contrast, the Farmer Fresh case study (included in this series) shows a non-profit farmers organisation attempting to enter the for-profit business realm.

Origins

Jedom was established in 2005 as a private enterprise with the aim of providing income for its owners and for farmers from remote areas of the Guadalcanal weather coast. It aimed to do this through creating value added products through food processing. Jedom founders, Jenny Keli and her husband Doni Keli, have a background in community service work. Jenny was a member of a KGA food security assessment team that stimulated the design of a project to help isolated farming families improve their food security and income.

Jenny attended a series of KGA food processing training activities on the weather coast[9]. The training focused on practical methods for processing what were seen as promising new 'wet' and 'dry' products that could be made from readily available produce. Produce for

9 This was part of the AusAID funded Sustainable Livelihoods For Isolated Rural Areas Project. Jedom did not receive any direct funding but was a training participant

fresh produce markets was not reaching markets because of the lack of reliable transport and other supporting infrastructure on the weather coast.

The methods and technologies that were adopted were very simple and were designed to assist village-based processors produce quality products such as chips, jams and chutneys in challenging geographic and climatic conditions. It was assumed that these less perishable and higher value products would be able to reach points of sale in urban markets. At the time Jenny was working with the Turusuala Community Based Training Centre (TCBTC) at Avuavu, a vocational training centre created by volunteers with a strong focus on agriculture.

Youth in extremely remote communities were in training at TCBTC, many of them still recovering from the so-called 'ethnic tensions' conflict of 1999-2003, giving the work of the training centre added social and community-rebuilding value.

Geographic isolation reduces assess to markets, limits family income

The more than 20,000 inhabitants of the Weather Coast lack the infrastructure to reliably connect them to the capital, Honiara, and its markets for rural produce. Consequently, the population has amongst the lowest cash income range in the Solomon Islands—households frequently earn less than SBD$30 per month. This situation, and the development of urban markets for the region's farm produce, is exacerbated by the lack of road access or safe port facilities for ships along its entire 150km coastline.

The westward-facing Weather Coast is an extraordinarily isolated region due to its extreme topography, with mountains of over 2000 metres in height within ten kilometres of the coast. The rugged mountains lead to agriculture on extremely steep slopes with rainfall of 8000mm per year. KGA conducted training in this region with the intention of stimulating the processing of local produce into less perishable and easily transportable products. It was thought that this would overcome the isolation and lack of reliable transport services. This proved a very challenging aim.

Product and business development

Jenny Keli left the centre but wanted to put into practice ideas introduced through the KGA training after she moved to Honiara with her husband and young family. Over the following years she developed a range of processed products under the Jedom name: dried nuts, chips, dried fruits, muesli and chutney. Jenny attempted production of some of the wet products—jams and chutneys—but could not economically source glass jars for packaging and found that demand was limited.

The business has grown steadily from a small cottage operation to a viable small company, however Jedom struggles to establish a supplier network in the remote areas. Despite this, Jedom has been a self-supported business and its growth demonstrates the value of hard work and reinvestment of earnings back into the business.

It is important to report the key areas of what has been modest assistance provided to Jedom prior to the FAO AAACP project so as to understand the context of Jedom being selected for this case study:

2005

- Jenny joined KGA training provided by a regional expert—Dr. Richard Beyer—and was later recommended by KGA to join a Ministry of Agriculture and SPC training conducted by Vanuatu food processor, Charles Long Wah, from the Kava Store.
- a KGA advisor (the author of this report, Tony Jansen) encouraged Jenny and her family to venture into the Ngali nut business; Ngali nut, canarium species, is a nut with a high market potential that is indigenous to Melanesia; Ngali has been the focus of many donor projects in recent years but most, if not all, have failed to lead to any commercialisation by the private sector; Jedom, however, now uses Ngali nut in a number of products.

2006

- an Australian volunteer with food processing and hospitality industry experience —whose recruitment was brokered by a KGA/Australian Volunteers International volunteer, Emma Stone, then working with KGA's Farmer Fresh operation—helped Jedom develop their muesli product, a tasty mix of dried fruits and nuts blended with imported roasted oats, that appealed strongly to the local expatriate market as an import substitute
- following research into suitable models, an electric dehydrator was imported from Australia and provided through an interest free loan from KGA to Jedom; this has now been fully repaid and the drier has proven effective for Jedom's small-scale start-up operation; having proven reliable, Jedom purchased additional units but product development remains hampered by a lack of local suppliers; Jedom's enterprise was the first time that KGA has provided loans for equipment to a private business—by contrast, the drier that KGA kept for its own use has rarely been used.

2009

- Jedom was provided with a second micro loan of AUD$1500 by the technical assistance provider to KGA, TerraCircle Inc (http://terracircle.org.au), which was used to purchase three additional driers, the loan being repaid by the late 2011.

2010

- KGA, through its founder (the author of this paper) has been an ongoing mentor for Jedom's business
- The Melanesian Farmer First Network (MFFN), a regional farmer assistance agency, made contact with Jedom through its market capacity building work under the AAACP program, and MFFN has been encouraging its members to form partnerships with private sector business in arrangements that are beneficial to farmer organisation members and small farmers.

Timeline:

Year	Activity	Achievements
2005	Training and start-up	Acquisition of basic equipment
2006	Training continues	Experience lead to lesson learned
2007	Developing marketing skills and better products	Improved business leader self-confidence
2008	Further development of skills and training	Expansion of markets and improved packaging
2009	Company named	The name JEDOM Organic Fruits Ltd is registered
2010	Expansion of products and markets	Move to bigger markets
2011	Construction of commercial kitchen	Improvement to product quality and customer service

b. Critical success factors

- Jedom now has a solid foundation as a growing, local business with owners who are committed to the long term development of their enterprise.

It had demonstrated innovation in product development by importing and using dehydrators for fruit and nut processing in a way not done before in Solomon Islands, and by creating further value adding in the form of the muesli product that mixed local and imported ingredients.

While Jedom is a relatively small enterprise it is one of the few examples of locally-owned processing and value adding enterprise in the Solomons. While KGA trained more than a hundred people in food processing—mostly women—Jedom is the only example of a formal enterprise—ie. a registered company with paid employees—that has emerged as a result of that training.

Growth factors identified

Jedom identified the critical success factors for their future growth as being:

- better product presentation
- longer shelf life of product (packaging quality improved)
- consistency of product supply to meet growing demand and new market opportunities
- a partnership with KGA to move Farmer Fresh from an NGO into the private sector, under Jedom.

In retrospect, it has become clear that the last point was more a KGA proposal and not a high priority of Jedom.

Barriers to business growth

Key obstacles and challenges for Jedom are:

- the need for better quality packaging and lower cost labels (currently up to SBD$6 per packet for muesli) and improved product presentation and shelf life; there are few suppliers of suitable plastic packets in the Solomons capital, Honiara, and costs are high and products tend to be discontinued after awhile, leading to inconsistent product presentation
- increasing cash flow to Jedom, for example, to purchase and process bulk fruits and nuts to cover seasonal shortages and price increases; commercial banks in Solomon Islands rarely provide credit to small, local enterprises and Jedom was no exception
- expansion beyond workers linked to the family to hired workers operating in an independent facility separate to the family home.

c. Results and experience

Improvement to the processed product

Jedom produces a range of processed products and changes to them and to their marketing have been incremental.

Current products are:

- chips—made from sweet potato and taro (xanthosoma or 'hongkong' taro), banana (plantain varieties)
- dried fruits—pineapple, pawpaw, banana (sweet varieties)
- muesli—locally sourced dried fruits and nuts are mixed with imported oats in a proprietary formula
- Ngali nuts—an indigenous nut that is processed and marketed as an attractive snack product.

All these products are new to the Honiara market.

Jedom has focused on high quality products sold in cafes, supermarkets, to the Gold Ridge mine workers and through direct sales to customers. Improvements have been made to the scale of production and Jedom has made progress with improvements to the design of labels and the type of plastic bags used to package their products. They would like to do more.

Jedom are currently constructing a new processing building funded by the reinvestment of profit from the business.

Farmer fresh outsourcing

Farmer Fresh is an organic produce home delivery service that was operated by KGA to provide a market outlet for its members.

After many years of effort the service failed to grow and was slowly contracting and its assets eroding. At the time of outsourcing there were very few farmer organisation members supplying produce (it was being purchased in the main market) and a real analysis of costs would probably have shown it to be operating at a loss. Many of the Farmer Fresh costs were effectively subsidized by the NGO, including staff time and in the latter stages, transport.

KGA decided to outsource operations to the private sector as a last attempt to keep the operation alive. A tender process had originally been proposed. Instead KGA management approached Jedom directly as a trusted private sector company that KGA knew well. Jedom agreed and put forward a plan that KGA agreed to fund under the AAACP project.

Seed Funding of SBD$10,000 for cash flow to restart the operation was provided to Jedom under a fairly unclear agreement. The agreement included a provision that there would be 80/20 profit sharing between Jedom/KGA – presumably from the Farmer Fresh related operations only. No specific training was provided for Jedom in the handover as fresh produce marketing was a new area for JEDOM, KGA made no commitment to assist with any intermediary role with its farmer members, and in hindsight this may be have been its downfall.

Jedom's experiences with Farmer Fresh are covered in another case study. In brief Jedom found the fresh produce marketing to be unprofitable and not part of their core business.

Description of the support received

- As mentioned, Jedom was contracted to take over the KGA Farmer Fresh Operation. In 2010, at the end of the trial period, KGA decided to take back control of Farmer Fresh due to poor growth in the operation and not enough PMN (FO) members benefiting. This is documented in more detail in the Farmer Fresh case study.
- Jedom attended the final regional Farmers Organisation workshop in Fiji making a presentation on their business and lessons learned. The training included a field visit to the Fiji Farmers Organisation FRIEND who have a relatively large processing operation that includes the use of solar driers. Jedom could see there was a lot they could learn from FRIEND and have put together a concept proposal for technology transfer project – solar drying and general operations experiences.
- Jedom was invited to the mid project regional training on value chain and agribusiness in Fiji but Jenny was not able to go due to family commitments.

d. Improved business model

Product sales are increasing with gross sales at about SBD$30,000 per month.

Product volume is currently around:

- chips—1200 packets a week
- muesli—about 50 packets a week.

New markets have been developed at the Gold Ridge mining operation near Honiara, for sales in their canteen and more recently with a specially developed dried fruit snack that goes into packed lunches for workers, and gift packs for travelling Chinese community members. Samples of Ngali nut were sent to an organic confectionary company in the United States but to date there has been no follow-up.

Jedom cannot meet current domestic demand.

Constraints and potential and actual solutions

Constraints	Solutions
Processing machinery able to handle sufficient volume with efficient operating costs	• exploring solar driers • planning to run own generator to reduce electricity costs for dehydrators • further technical assistance to select commercial units
Labour and labour management	Moving more to hired and away from family labour.
Suitable scale of workspace and space for produce storage	Under construction.

Labeling and the resulting presentation of products has improved through well designed labels but costs per unit remain very high for the colour stick-on labels used. Jedom has not been able to bulk order from local suppliers as no discounts are offered and lack the information, confidence and the cash flow to bulk order from overseas. Local contacts and business have designed the labels.

The focus of Jedom's market development has been on high quality product and niche marketing in Honiara. Around 80-90 percent of farm produce is now sourced from the main market in Honiara. The exception is Ngali nuts which are sourced through informal agreements with about 50 small farmers. Attempts to have farmers supply a range of fruits directly were probably premature and Jedom is now concentrating on their own products and on market growth.

When the business expands it will be in a stronger position and may revisit the idea of contracting farmer suppliers. At present they have abandoned use of contracted suppliers for most raw materials as they found it was not workable, often being more expensive than purchasing in the main market. There was irregular quality and unreasonable expectations by farmers.

Jedom finds that Honiara's main produce market is more competitive and allows them to choose the best produce and get the best prices. Their experience with direct supplying farmers (on contract) is that farmers add costs on and tend to provide lower quality such as harvesting fruits at the wrong time. Complex social obligations and underlying cultural values make contract commitments hazy and unenforceable.

The main market has other advantages such as buying in the evenings when the price is low.

Processing business—growth and challenges

Sourcing produce from outside of the main produce market in Honiara was found to be unviable in most cases. The exception to this has been Ngali nuts and pineapple. For nuts in particular, but also pineapple, Jedom is developing a supplier/producer network. There are 40-50 farmers who supply nut, for example, which is processed in bulk during the season. There are no formal contracts or registers of suppliers but there is established relationships.

Jedom asked farmers to partially process nuts by cracking them and removing the bulky shell and pulp, and providing the nuts to them within 24 hours. The nuts are then stored in a deep freezer and could be dried as needed. They found, however, that farmers were unreliable and tried to supply product that was already going bad.

Similarly, Jedom attempted to outsource processing of chips (from banana and root crops) to the weather coast. But they found the chips produced at village level were not fresh and/or tasted different to what their customers expected. The producers realised that part of their appeal is consistency of taste and appearance and that this is achieved by using the same processing formula, e.g. using the same oils etc. Jedom decided they could not risk having others fail to follow the correct formula.

KGA training had discussed the possibility of partial processing technologies but this was covered in theory only and it has not been able to be put it into practice as it is unproven.

Managing workers

The business is operated from home with Jenny and husband Doni working in the operation and having two hired, full time workers.

They are carefully managing the shift from an extended family business to more formal employment arrangements. Both have advantages and disadvantages but as the business grows the need for committed and reliable staff outweighs the lower costs of informal family labour.

Constraints of technology

Domestic electric fruit driers were sourced in Australia by KGA.

Electricity is expensive with Solomon Islands and Vanuatu having some of the highest charges for electricity[10] and the lowest rates of electricity extension to rural areas[11]. Electrical energy is only available in the city and a few small urban centres and even in those places power outages are a regular occurrence. If machinery is operating all at the same time the power demand can overload the home circuit with its domestic wiring.

Solar dryers were seen as having potential but they had concerns over consistency and quality. This interest expanded greatly when Jenny was exposed to large commercial solar driers operated by FRIEND in Fiji as part of the final AAACP farmer organisation workshop during a field visit. Prior to attending the workshop and learning about this technology and seeing its application, Jedom were planning to purchase their own diesel generator to supply their own electricity. This plan is now being revisited.

10 Rod Duncan, Pacific Economic Bulletin Volume 23 number 3 2008 © the Australian National University

11 M., Hannington, A., Kenni, L., Naupa, A., Rawlings G., Soni, N. and Vatu, C., 2007. The unfinished state: drivers of change in Vanuatu, manuscript, April, Pacific Institute of Public Policy, Port Vila.

The Farmer Fresh joint venture with KGA

While operating the fresh produce home delivery program, Jedom was never able to grow the home delivery customer base beyond ten customers a week. KGA's own analysis in the original business plan and in follow up studies had showed that 30 customers a week was the approximate break-even point and that reasonable profitable business would occur around 100 customers a week.

It was found that:

- demand for home delivery services is very limited; the market for those prepared to pay a premium price for home delivery is small but this type of operation needs volume
- managing transport costs is a challenge; to be viable there is a need to move larger quantities but the market could not be grown to reach that volume
- the profitability of fresh produce marketing is lower than processing and value adding which can work well even with smaller volumes
- working capital is consumed very quickly with fresh produce marketing .

Jedom maintained its one corporate customer developed during the operation of the Farmer Fresh enterprise. This is an Australian aid contractor company SKM that continues to order a daily basket of fresh fruits and roasted Ngali nuts for their office.

SKM

When selling to SKM Jedom makes a gross margin of around $50 after buying $70-$80 worth of produce at the market. Sales income has to cover travel expenses, usually by bus, and staff time. They retain the service in the hope that it will bring opportunities stemming from having an established relationship with a large Australian company.

There appears to be potential to expand this kind of corporate delivery service but Jedom is concentrating on value added products only and not on fresh produce marketing.

Jedom has learned important lessons from their experience:

- the need to view the project as a longer term process of evolution of business models leading to improved opportunities for small farmers
- the need for very clear agreements between NGOs (KGA) and its operation, a lesson coming from mistaken expectations in the past and during the Farmer Fresh experience.

In effect the AAACP program has helped both KGA and JEDOM exit an unviable fresh produce marketing initiative that benefited very few small farmers and was draining resource from a farmer organization and, later, a private business.

e. Future plans

The following are directions that Jedom is exploring in planning for the future:

- the opportunity to grow more of their own produce and have more of a closed loop for the supply of some key ingredients
- working toward attending Sydney Fine Food show to showcase their products and explore export opportunities with support of PITIC, a link facilitated by TerraCircle
- products are being marketed as 'organic' but without any certification or guarantee scheme; at some point they may need to move to a certification system for suppliers to ensure that their suppliers are organic, particularly if they look at export markets
- lowering costs of packaging and labeling while improving product appeal and shelf life; this constraint was identified at an initial KGA workshop but no viable solution has to date been found
- solar drying, a potential solution to increasing electricity costs, providing quality can be maintained
- building a new processing facility to comply with new laws and trade compliance requirements and to provide room for expansion (see photos).

f. Lessons learned

While starting with an aim to provide benefits to small farmers, in effect Jedom has had to put this partially on hold while they grow and develop a viable business.

The Farmer Fresh experience provide important lessons for Jedom:

1. Fresh produce sales and marketing is not viable on a small scale.
2. A processing business works best when based in Honiara where there is access to electricity and it is located close to its market.
3. Jedom decided to concentrate more on continued investment in processed product—for example, drying adds a value to a product.
4. Farmers can get caught in the between KGA's values and the reality of the market. It appears that Jedom was also caught, with the decentralised processing units for chips in the village not maintaining quality.

During the case study interview, Jedom had this Advice for KGA:

- KGA members need a clear goal on how to engage with helping farmers access new or existing markets
- KGA should help farmers to clarify their goals and move toward them
- farmers will be the main actors in a business and not KGA; KGA should not promise markets but instead should link their farmers to the private sector
- Jedom have refined their goal through their experiences with KGA, which helped them to learn what they did not want to be doing—fresh produce sales
- the philosophy of KGA can be in conflict with making a profit
- business need to be wary of donors and aid programs.

Improving training

Training in food processing by NGOs and Farmer Organisations needs to be targeted at the right people. Many people attended KGA food processing training because they were curious but were unlikely to put what they learned into practice. It may be better to target training at those who are already involved or who have started their own business. Training needs to include stories of people who are already running their own business to encourage new business ventures and to base the situation on true stories and the actuality of local conditions

The unreliability of farmers supplying the enterprise has been a constant theme in the Jedom story as it has in other case studies.

Capital and equipment

Jedom considers this the most critical area where donors could assist but rarely seem to do so.

Support is needed for capital and equipment in order to start new business activities. Accessing capital through zero interest loans is an effective tools and worked well in the Jedom case. Grants tends to undermine business viability.

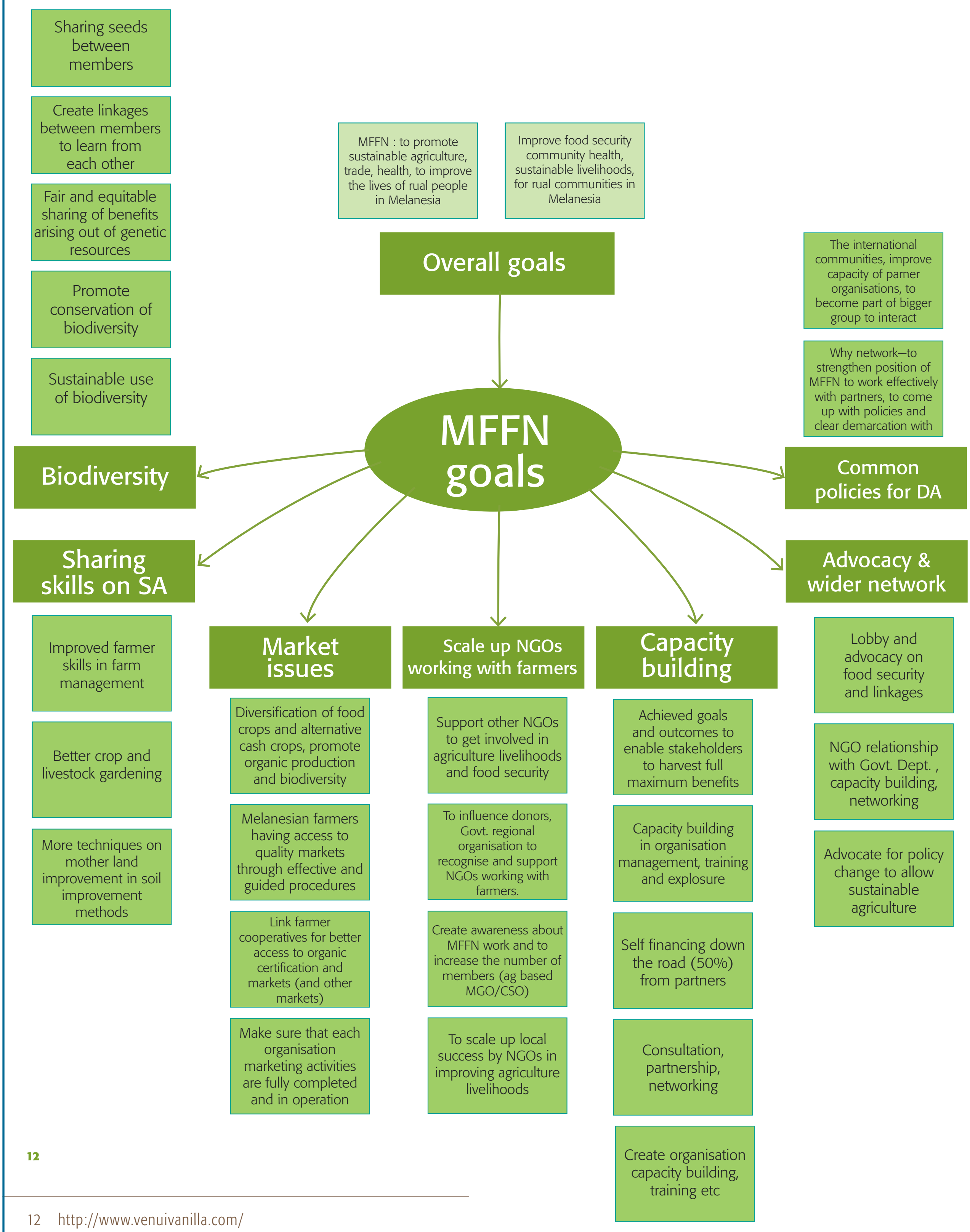
What works	What doesn't work
Urban-based processing operation with proximity to an electrical energy source, reliable supply market, buyers	Outsourcing processors to rural areas because of quality issues and consistency of product.
Buying in the main market due to reliability, choice of qualities such as the opportunity to buy in bulk at lower price such as at end of the trading day	Contract suppliers as individual farmers and groups that expect unrealistic prices and place extra demands on the business such as travel cost and unreliability of supply and quality.
The benefit of social structures such as relatives staying in the household to help with labour for processing operations	Social pressure from relatives who are suppliers.
Bulk storage and processing drives process when prices are lower	Connecting remote farmers to the market.
Buying arrangements with large buyers such as Gold ridge mine	Home delivery, because the volume and the potential expatriate market is too small.
Organic labeling although the product is not certified. Choosing suppliers that use organic methods at the market.	Too much ideology in meeting small farmer needs, not compatible with business.
	Packaging and labeling remain very costly and it is difficult to find alternatives or to fund large bulk orders from overseas suppliers .
Chinese are buying products to take overseas as gifts.	Sent samples to overseas processor in USA but never heard back from them.
	Expansion difficult due to lack of capital.
Value adding through processing and higher value products such as chips, muesli, dried fruits, nuts	Fresh produce agent— margins are too low and difficult to make money (eg Farmer Fresh).

Attachments

A1: Melanesian Farmer First Netowork goals

A2: Varieties available from Planting Material Network

A1 MFFN goals



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12 http://www.venuivanilla.com/

A2 Varieties available from PMN

Acc No.	Name	Plant type
231	Mint	Herb
110	Peruvian Bush Cherry tomato	Fruit
108	Urbana Tomato	Fruit
273	yard long bean	Bean
217	Yellow Chillie	Fruit
228	Philand Chillie peper	Fruit
227	Thai Coriander	Herb
112	Island red tomato	Fruit
107	Round Tomato	Fruit
122	Yellow corn	Fruit
187	Reef Nali Nut	Fruit
197	Short Strip Egg Plant	Vegetable
199	Sweet White Corn	Fruit
168	Bounio Cabbage	Kabis
163	Red peanut	Fruit
209	Rocket Chillie	Fruit
152	Long chillie Paper (red)	Fruit
212	Yellow Tomato	Vegetable
149	Sour Soap Tree	Fruit
216	Round Isabel Pumpkin	Fruit
239	Bakua	Sweet Potato
135	Cow pea - red	Bean
124	Yellow Amarntha	Kabis
182	Tumariki	Herb
222	Thai coriander	Herb
246	varatara 1(IB 08-141)	Sweet Potato
253	Dingale (IB 07-01).	Sweet Potato
254	Habare 127(IB 07-91)	Sweet Potato
255	L 50 (IB 096)	Sweet Potato
256	VSP 1 (IB 123)	Sweet Potato
257	Anny (SI 305 IB 08-143)	Sweet Potato
258	Toni (IB 197)	Sweet Potato
259	Naveto (iB 07-32)	Sweet Potato
260	Napeuale (IB 08-142)	Sweet Potato
261	W-223 (IB 07-133	Sweet Potato
262	TIB 2 (IB 07-03)	Sweet Potato
263	Cassava (M/E 03)	Cassava
265	Black pepper	Sweet Potato
266	Neem tree	Other root crops

Acc No.	Name	Plant type
268	tauvusi	Sweet Potato
270	Ping Tung long eggplant	Vegetable
271	Zina bean	Bean
252	iita -tib11 (IB 07-135)	Sweet Potato
251	W-226 (IB 07-134)	Sweet Potato
232	Long tall sorghum	Animal Feed
233	Red sorghum	Animal Feed
235	Green Basella	Kabis
236	White big peanut	Fruit
237	Sweet corn (yellow)	Fruit
238	Sweet potato(IB07-136)	Sweet Potato
240	Kaulogu	Sweet Potato
241	ATARA	Sweet Potato
242	TOMBE	Sweet Potato
243	Moresi (IB 07-26)	Sweet Potato
244	Beauregard (IB 07-107)	Sweet Potato
245	Faungalia (IB 08-140)	Sweet Potato
247	Jerry	Sweet Potato
248	Goveo TG 27	Sweet Potato
249	VSP 3 (IB 07-137)	Sweet Potato
250	W-222 (IB 07-132	Sweet Potato
272	cocoa bean	Bean
17	Long bean - Lucy`s bean	Bean
36	Mung Bean	Animal Feed
26	Tomato- Vudutaru	Fruit
47	Marigold yellow –single (panarui)	Flower
40	Egg plant -long purple	Fruit
77	Chai cabbage	Kabis
31	Velvet Bean- Nairi`s	Fruit
92	purple corn	Fruit
91	Red sorghum	Animal Feed
37	Wing Bean-Purple Bouna	Bean
1	Ground Bean- brown seed	Bean
93	Big Red Chili	Fruit
55	Phyland chilli	Fruit
5	Okra –green	Kabis