



Pacific Horticultural and Agricultural Market Access Program (PHAMA)

PHAMA Technical Report 16: Potential for Cutflower and Foliage Exports to Australia

22 MARCH 2012

Prepared for
AusAID
255 London Circuit
Canberra
ACT 2601
AUSTRALIA

42444103

URS

KALANG

Project Manager:



.....
Sarah Nicolson

URS Australia Pty Ltd

Level 4, 70 Light Square
Adelaide SA 5000
Australia
T: 61 8 8366 1000
F: 61 8 8366 1001

Project Director:



.....
Robert Ingram

Author:

.....
Grant Vinning

Reviewer:



.....
Richard Holloway

Date: **22 March 2012**
Reference: 42444103
Status: FINAL

© Document copyright URS Australia Pty Limited.

This report is submitted on the basis that it remains commercial-in-confidence. The contents of this report are and remain the intellectual property of URS and are not to be provided or disclosed to third parties without the prior written consent of URS. No use of the contents, concepts, designs, drawings, specifications, plans etc. included in this report is permitted unless and until they are the subject of a written contract between URS Australia and the addressee of this report. URS Australia accepts no liability of any kind for any unauthorised use of the contents of this report and URS reserves the right to seek compensation for any such unauthorised use.

Document delivery

URS Australia provides this document in either printed format, electronic format or both. URS considers the printed version to be binding. The electronic format is provided for the client's convenience and URS requests that the client ensures the integrity of this electronic information is maintained. Storage of this electronic information should at a minimum comply with the requirements of the Commonwealth Electronic Transactions Act 2000.

Where an electronic only version is provided to the client, a signed hard copy of this document is held on file by URS and a copy will be provided if requested.

Table of Contents

Executive Summary	v
1 Solomon Islands Floricultural Industry	1
1.1 Background	1
1.2 Review of Literature	1
1.2.1 Customers	2
1.2.2 Supplies	2
1.2.3 Florists	2
1.2.4 Land	3
1.2.5 Mechanisation	3
1.2.6 Costs	3
1.2.7 Producers	4
1.3 Success Drivers	4
1.4 Australian Centre for International Agricultural Research	4
1.5 Exports	5
1.6 Current Situation	5
2 Market Research	7
2.1 Product Selection	7
2.1.1 Vanda Orchids	7
2.1.2 Spider Orchids	8
2.1.3 Photographic Record	8
2.2 Procedure – Solomon Islands	9
2.3 Procedure – Australia	9
2.4 Marketing Research	10
2.5 Prices and Profitability	11
2.5.1 Prices	11
2.5.2 Costs	11
3 Floricultural Export Opportunities to Australia: Issues and Opportunities	12
3.1 Production	12
3.1.1 Input Supply	12

3.1.2	Pests and Diseases	12
3.1.3	Production	12
3.1.4	Harvesting	13
3.2	‘Bit in the Middle’	13
3.2.1	Post-harvest Treatment	13
3.2.2	Packaging	13
3.2.3	Storage, Assembly and Inspection	13
3.3	Marketing	14
3.3.1	Supply Calendar	14
3.3.2	Supply Volume	14
3.3.3	Nomenclature	14
3.3.4	Market Information	14
3.3.5	Business Skills	14
3.3.6	Markets	14
3.3.7	Australian Quarantine Inspection Service (AQIS)	14
3.3.8	Australian Regulations	15
3.3.9	Product Assessment	15
4	Lessons from Market Research	18
4.1	Production	18
4.2	‘Bit in the Middle’	18
4.3	Marketing	18
5	Future Action	20
6	Limitations	22

Tables

Table 5-1	Proposed resources for PHAMA-funded activity.....	21
-----------	---	----

Figures

Figure 1-1	Solomon Islands Floricultural Income Continuum
Figure 5-1	Three-step value chain format

Appendices

Appendix A References

Appendix B Terms of Reference for Follow-on Activity

Abbreviations

Abbreviation	Description
ACIAR	Australian Centre for International Agricultural Research
ALP	Agricultural Livelihoods Program (a component of the Community Sector program)
AQIS	Australian Quarantine Inspection Service
AusAID	The Australian Government's aid organisation
CITES	Convention for International Trade in Endangered Species
PHAMA	Pacific Horticultural and Agricultural Market Access Program
SIFA	Solomon Islands Floricultural Association
SISAS	Solomon Islands Smallholder Agricultural Study
SSO	South Seas Orchids (Fiji)
VCED	Value Chain Enterprise Development (an activity within the Agricultural Livelihoods Program)

Executive Summary

While flowers have been utilised for centuries in Solomon Islands, commercial floriculture is relatively new. Today over 50 floriculture producers market through the Honiara Central Market on a regular basis, with around 500 households involved in the regular production of flowers for commercial purposes. Honiara has around 30 part-time florists, although there is just one full-time florist. Commercial trade in indigenous orchids from some of the more distant provinces into Honiara is beginning. There are currently no exports.

Floriculture in Solomon Islands is ideal for small scale production because it requires little capital, land is not an issue, most Solomon Islanders have some production knowledge, and there is a widespread appreciation for flowers throughout the country.

Floriculture has received little written and official attention. Writings about commercial activities only began in 2008 when the Value Chain Enterprise Development Program component of AusAID's Community Sector Program commenced. With the termination of that program and its successor program in 2010, work on floriculture all but ceased. There is a small project being undertaken by the Australian Centre for International Agricultural Research (ACIAR).

While there are currently no exports of Solomon Islands' floricultural products, the potential for export has been noted by several experienced commentators. Impediments to exports are seen to be: limited airline capacity; the non-existence of cool storage to ensure post-harvest preservation between harvesting and exporting; Convention for International Trade in Endangered Species (CITES) conditions surrounding the exporting of indigenous orchids; and quarantine issues associated with the importation of Heliconias and Gingers into Australia.

Since 2008 there have been several developments that have resulted in a need to re-examine the potential for exporting. First and foremost has been the start-up of the Pacific Horticultural and Agricultural Market Access Program (PHAMA) and with it the means to address two of the central issues: cool storage and quarantine. Secondly, there is emerging potential for what appears to be a cost-effective supplier of the packaging needed for exporting. Thirdly, contact was made in early 2010 with an importer in the Brisbane Flower Market interested in importing product.

This scoping study was designed to make a preliminary assessment of the feasibility of establishing an export trade in tropical cut flowers, orchids and foliage into key Australian markets. Four products were selected: Vanda and Spider orchids, Crotons, and Cordylines. Heliconias and Gingers were specifically excluded from the study due to unresolved quarantine issues.

The marketing research associated with this study was based on the three value chain actors of importers, wholesalers, and retailers in Brisbane and Sydney. The research draws on prior research undertaken in Brisbane in 2010, and Adelaide, Brisbane and Melbourne in October 2011. Interviews were also held with some Australian producers.

There was a remarkable range of comments on the market potential for the four products investigated. Each of the four products had people who stated *"love it, where can I get it"* and *"won't sell, not interested, don't bother"*.

In contrast, and based on photos, there appears to be widespread interest in two varieties of Heliconias and Gingers.

The study faced two major challenges in establishing the commercial viability for the identified products: lack of price data specific to the four target products, and, in the absence of specific volumes, cost data related to air freight.

A three-step value chain format was used for the market research: production, “bit in the middle”, and marketing.

With production, there is a lack of rigour in the selection of planting material, reducing the availability of pure stands of consistent material. Without consistent product, Solomon Islands will be handicapped in being able to offer with confidence product that meets the market’s expectation. While some producers are aware of pests and diseases, agro-chemicals and extension advice to control these are virtually non-existent. This is likely to become a problem with more intensive commercial production. Production is household based, with there being no commercial production. Little knowledge appears to exist as to how to go about a planned production process. On the whole, harvesting is not professionally done. As flowers are harvested on same-day sales basis, there is the need to develop harvesting guidelines that are able to result in at least seven days vase life following export.

The term “bit in the middle” is used to describe the various steps that link production with marketing. There is some knowledge about reducing field heat but it is not widespread. Equipment to reduce field heat, such as simple bath-sized tubs, is missing. There is no locally available packaging material (such as vials, padding, sleeves and boxes) for exporting. Considerable experimentation will be required to develop appropriate within-box packing for the different species. Appropriate facilities for storage / central assembly / quarantine inspection are lacking. There is a lack of knowledge of appropriate storage temperatures for candidate products

With the marketing component, there is little precise knowledge on the availability of the different products. Lack of volume will be an issue affecting buyer interest and economies of scale. There is a need to develop seasonal supply calendars and to adopt a common naming system for the various plants. Some market information does exist in Australia but more work is needed to establish price patterns. The business skills of floriculturists in Solomon Islands are generally poor. There is the need to adopt a small volume – high value approach. This means that close supervision along the whole chain is critical. There is no floricultural business in Solomon Islands with a business structure and skills that is currently suitable for extending into export activity. Brisbane is the smallest market of the Australian capitals. This may suggest a favourable size parameter with which to start marketing. However, it is also considered to have the most interventionist quarantine inspection services. Australia’s quarantine service will be a major challenge. In addition, Australia has a plethora of rules and regulations that could impinge on Solomon Islands exporters. There is a need to keep a keen eye on these.

A number of precise market-based comments were provided on the four selected products. These included comments relating to colour, packaging padding, stem length, colours, “soxing” with expandable polythene “sox”, and box size.

Overall, the Vanda is considered to have good market prospects. With Spiders, there was interest in the Red or Maroon varieties. There was little interest in the crotons and cordylines. Based on photos, there was strong interest in the Double Makira and White Jungle King Gingers. Heliconias have to be red or red-hued.

Based on the research, a number of lessons for export development were identified. Those relating to production are considered beyond the mandate of PHAMA. It is recommended that these be referred to ACIAR for action under HORT/2011/065.

The report makes three main recommendations for PHAMA.

The first is that a trial shipment of Vandas, Spiders, and Crotons be sent from Solomon Islands in early 2012. For this to happen, work needs to be done with South Seas Orchids in Fiji to develop appropriate packaging and with Punjas (Solomon Islands and Fiji) to develop the supply of export boxes. Other issues that need to be addressed include the provision of cheap water-based field heat removal techniques and equipment; the importation of appropriate sleeves, vials, wrapping material, and padding; and the provision of a cool store collection point such as a refurbished refrigerated container. In addition, an appropriate exporting business organisational structure needs to be developed, and business training needs to be provided to the exporter(s).

The second is that, if the trial shipment is successful, PHAMA supports the export of around five subsequent shipments to initiate development of the capacity required to sustain export activity.

The third recommendation is that work should begin on the development of quarantine protocols for Australia that will allow the importation of Double Makira and the White Jungle King gingers.

1 Solomon Islands Floricultural Industry

1.1 Background

Flowers have been utilised for centuries in Solomon Islands. Uses included personal decoration, ceremonial use in the large number of rites of passage, and home beautification. While custom differs among the 70-odd cultural linguistic groups in the country, growing flowers around houses is common. This production supplements flowers that are wild harvested. It is common for travellers who see a flower that they do not have to take cuttings back to their home to raise, albeit after receiving permission from the landowners to take the cuttings.

On the other hand, floriculture as a commercial industry is relatively new.

The growing of flowers for sale started in Honiara around 15 years ago. There were two imperatives. One was from producers who grew flowers for their calming and healing properties. Patients in the main hospital were the beneficiaries of this belief-in-action. The other was from some expatriates who purchased flowers for home beautification from producers close to Honiara. Production was quite *ad hoc* and sales were made on an irregular basis. Nevertheless, the making of floral arrangements for the likes of weddings, birthdays, and special events was growing in popularity. Makers of wreaths also became more professional, with some attending training in floral art display in nearby Pacific countries. In the early 2000s, the Solomon Islands Government provided assistance to some florists to attend floricultural events in Fiji, New Zealand, and Vanuatu.

In mid-2006, the Honiara City Council allocated space at the Honiara Central Market specifically for the marketing of flowers. Business started very slowly with just four producers. The situation improved in mid-2008 when the Market Manager fenced-in the area between the roadway/pathway and the flower area, thereby improving security and enhancing the notion of a clearly defined, dedicated flower-selling space.

Today, around 40 floriculture producers market through the Honiara Central Market on a regular basis. Around 500 households are involved in the regular production of flowers for commercial purposes. While Honiara has around 30 part-time florists, only one (Mrs Anne Meadia) is a full-time florist for whom flowers are the sole source of income. Commercial trade in indigenous orchids from some of the more distant provinces into Honiara is beginning.

1.2 Review of Literature

Floriculture in Solomon Islands has received little written and official attention. Even the country's orchids, usually the subject of most writings on floricultural products in tropical countries, have had comparatively little attention. This is despite Solomon Islands being contiguous to Papua New Guinea, which is considered to have the world's greatest supply of indigenous orchids. Mention of the country's orchids is made in Cribb (2008), Lewis and Cribb (1991), Hunt (1969), and Pakacha (2007), but that is it – just a mention.

Nothing appears to have been written on the commercial aspects of the country's flower industry until 2008. Flowers escaped the attention of the seminal *Solomon Islands Smallholder Agriculture Study* (SISAS 2006). This is despite the fact that commercial flower production and marketing in Solomon Islands is an ideal crop for smallholders because:

- Production requires little capital;

- Land issues, usually common in Melanesia, are not relevant to flowers;
- Most Solomon Islanders have some production knowledge; and
- There is a widespread appreciation for flowers throughout the country.

Late in 2008, the Value Chain Enterprise Development Program (VCED) component of the AusAID-funded Community Sector Program (CSP) commenced. VCED was to continue for two years under a different program before the head program – the Agricultural Livelihoods Program (ALP) – was terminated in late 2010. VCED undertook several studies of the country's floricultural industry. In late 2008, Stice and Sale provided the first value chain mapping exercise: it was of the Betikama flower marketing group (Stice and Sale 2008). This was followed by notes on the Matana Ara Women Association at Kakabona (*aka* Kakabona) (Stice and Sale 2009). A more detailed study of the country's floricultural industry followed (Vinning and Sale 2009), which provided a value-chain perspective. Maedia and Vinning undertook a template-based analysis of the industry for FAO in Samoa in late 2009 (Maedia and Vinning 2009). With the termination of the ALP, work on floriculture all but ceased.

A summary of the three major studies on floriculture in Solomon Islands¹ is provided below.

1.2.1 Customers

Customers of floricultural products in the Honiara area are householders, churches, businesses, and government, with stronger sales for special occasions such as national holidays, Mother's Day, St Valentine's Day, ANZAC Day, and United States Remembrance Day. In Honiara, customers of floricultural products can purchase their products directly from producers, from the Honiara Central Market in an *ad hoc* manner, from the same producer at the Honiara Central Market, and from florists.

A major weakness of the industry is the lack of skill of those involved in selling the product at the Honiara Central Market on a Saturday, the major selling day.

1.2.2 Supplies

Supplies to market tend to follow regular patterns. However, there is no detailed information on what type of flowers are available at what time of the year.

1.2.3 Florists

There are a comparatively large number of part-time florists in Honiara – probably around 30 at present – but just one florist, Orchid Art, appears to be formally registered as a business and operating on a full-time basis.

Because most florists have another job, they tend to be better educated. Most have secondary school education. A few have excellent computer skills and are regular users of the internet searching for ideas for floral art material and different arrangements. However, the computers are invariably part of their full-time job. Generally, florists have poor business skills: there is little record keeping, costs are not properly identified, customer preferences are not recorded, and they tend to have a reactive rather than proactive approach to marketing.

A major issue for all florists is the lack of working capital. This due to the massive gap between paying cash on delivery for flowers from their suppliers and the time they are paid by their wreath buyers.

¹ Vinning and Sale (2009), Vinning et al (2009), and Maedia and Vinning (2009).

1.2.7 Producers

Business skills are poorly developed. Like florists, producers tend not to keep records, have a poor idea of their costs, and their marketing tends to be reactive rather than proactive. Poor pricing is an element of poor business skills.

Many producers appear willing to buy unusual planting material in order to increase the range of flowers they grow. Some imported phaelonopsis sell for SBD\$400 per plant. Taiwan is the major origin of imported orchids, although a few have come from Thailand. It is likely that as the country's quarantine service continues its encouraging progress towards being an active service dedicated to protecting the health and safety of the country's people and its flora and fauna, this source of material will dry up.

1.3 Success Drivers

Maedia and Vinning (2009) identified the main drivers for future success as:

- Improvement in quality, especially post-harvest preservation. This means addressing the issues of pests and diseases affecting floriculture. In turn, this means identifying the existence of such factors.
- The selection of varieties that result in longer shelf life. In turn, this means considerable work on vase life.
- The identification of appropriate agro-climatic regimes for production of preferred floricultural products.
- The development of a wholesaling system that allows producers to concentrate on production while assuring retailers of a reliable supply of product of a known and consistent quality.
- Improvement in production techniques that allows producers to reduce their costs while improving their yields, especially in terms of blooms per stem.
- Development of appropriate quarantine protocols that allow for the easier importation of genetic material.
- A pricing regime that encourages locals to buy the product.

1.4 Australian Centre for International Agricultural Research

By late 2009, VCED was aware that its funding would not be continued beyond 2010. At the same time, the possibility of involving Solomon Islands in the Australian Centre for International Agricultural Research (ACIAR) Project PC/2008/011 *Strategies using floriculture to improve livelihoods in indigenous Australian and Pacific Island communities* emerged. Participation in this project was regarded as a potential exit strategy for VCED.

As a result, considerable effort was put into having the Solomon Islands' industry participate in this project as a full partner. One aspect of this was to form the Solomon Islands Floricultural Association (SIFA) into an organisation acceptable to ACIAR that could sign financially binding and responsible agreements. Mr Andrew Sale was successful in having SIFA registered pursuant to the newly enacted Community Company Act. Again, with the termination of the ALP, work on this aspect of the floriculture industry ceased.

In July 2011, ACIAR provided funding under PC/2008/011 for a three-member mission to visit Solomon Islands. As no public report is available from the mission, it is difficult to comment on its

outcomes. It is known that the mission undertook value chain investigations in order to compare the Solomon Islands' industry with that of Fiji. It also conducted a floral arrangement session.

1.5 Exports

The potential for exports of Solomon Islands floricultural products has been mentioned by several experienced commentators.² In their opinion, the heliconias and gingers from Solomon Islands are particularly vibrant and would find a market in Australia.³ Further, Solomon Islands appears to have excellent orchids that would also find a ready market in Australia as either a cut flower or as a whole plant. One consultancy stated that potential for the exporting of foliage should also be explored (South Seas Orchids 2009).

Vinning et al. (2009) noted that the impediments to exports included:

- Limited airline capacity;
- Non-existence of cool storage to ensure post-harvest preservation between harvesting and export;
- Convention for International Trade in Endangered Species (CITES) conditions surrounding the export of indigenous orchids⁴; and
- Quarantine issues associated with the importation of heliconias and gingers into Australia.

1.6 Current Situation

Since 2008, there have been several developments that have resulted in a need to re-examine the potential for exporting.

First and foremost has been the start-up of the Pacific Horticultural and Agricultural Market Access Program (PHAMA), which provides the means to address some of the central issues associated with exporting floricultural products from Solomon Islands, particularly:

- Post-harvest handling facilities, particularly cool storage; and
- Quarantine issues.

Secondly, Punjas has now established itself in Solomon Islands. Punjas is a Fiji-based conglomerate whose activities include the production of packaging such as paper cartons and even some plastics. The second report of the South Seas Orchids (SSO) consultancy for Solomon Islands identified packaging as an issue that constrained the development of inter-island trade in floricultural products. SSO offered to provide the Solomon Islands' floricultural industry with the box design that it has developed with the help of Punjas (Fiji). Subsequent discussions with Punjas (Solomon Islands) in October 2011 resulted in them offering to transport the boxes from Fiji to Solomon Islands on a no-cost basis when it shipped its monthly container of supplies. Further, Punjas offered to warehouse the boxes on a no-cost basis, thereby saving the Solomon Islanders the need to purchase boxes in prescribed minimum quantities. The packaging to be used for inter-island shipping would be the same

² The term "experienced commentators" is used deliberately. A large number of international visitors see the flowers on display at the weekly Honiara Central Market and explain "these will sell like hot cakes in Australia". These comments are not taken seriously. The term "experienced commentator" refers to the likes of Mr Don Burness and Mrs Aileen Burness of South Seas Orchids from Fiji who were twice commissioned by Community Sector Program to undertake consultancies developing the country's floricultural industry. As part of their commission, they helped produce *Growing and Handling of Cut Flower Orchids in Solomon Islands* and *Growing and Marketing Ginger and Heliconias in the Pacific*. Another "experienced commentator" is Dr Dick Watling, who was commissioned by ACIAR to provide a CITES perspective of orchids from Solomon Islands (Watling 2010).

³ Pers.comms. Mr Don Burness, South Seas Orchids, Honiara, July 2009.

⁴ Pers.comm. Dr Dick Watling, Honiara, August 2009.

as that used for exporting. Thus, packaging, previously seen as an inhibiting factor, was suddenly being addressed.

Thirdly, in early 2010 VCED organised a market development mission to Brisbane. Although the mission was based around packaging, the occasion was used to visit the Brisbane Flower Market. Contact was made with an importer/distributor who expressed interest in dealing with some Solomon Islands floricultural products. Contact was maintained with the importer, providing a link that had hitherto been missing.

Finally, there have been some moves by a small number of floricultural producers to move from their part-time semi-commercial production to a more formal full-time basis. The producers (all women and most from Kakabona near Honiara) argued that if they were to progress to full-time production they could swamp the domestic market and thus they saw exporting as a potential outlet for their produce.

2 Market Research

In August 2011, PHAMA determined to investigate whether there are profitable export opportunities into Australia for floricultural products from Solomon Islands. This preliminary scoping study has been carried out to assess the feasibility of establishing an export trade in tropical cut flowers, orchids and foliage into key Australian markets.

The approach adopted covered:

- Assessing whether there is a demand in Australia for select Solomon Islands product.
- Assessing whether this demand can be developed into a commercial trade.

The process followed for the study covered:

- Selection of products;
- Procedure in Solomon Islands; and
- Procedure in Australia.

2.1 Product Selection

Four products were targeted:

- Vanda Orchids (*Vanda Agnes Joaquin*);
- Spider orchids (*Arachnis Maggie Oei*);
- Crotons; and
- Cordylines.

On the advice of PHAMA, no effort was made to assess Heliconias and Gingers, due to unresolved quarantine issues.

Some issues were noted, as outlined in the following sub-sections.

2.1.1 Vanda Orchids

Solomon Islands has a large number of Vandas. Three are commonly identified as follows:

- *Vanda Diana* – large white thin leafed flower
- *Vanda Amy* – all-red flower
- *Vanda Agnes Joaquin* – striped red-and-white flower.



Vanda Amy



Vanda Diana



Vanda Agnes Joaquin

There is also a series of hybrids, some of which are natural and some of which appear to have been bred. There are also Vandas that are directly derived from material imported from Taiwan. These tend to be blue but there are other colours.



The decision was made to work with just the first three Vandas, as these are more commonly produced in Solomon Islands and can claim a higher level of “local-ness” compared to the other Vandas.

Only *Vanda Agnes Joaquin* was readily available at the time of the mission.

2.1.2 Spider Orchids

Solomon Islands has two major types of Spiders: *Arachnis Maggie Oei Red Ribbon* and *Arachnis Maggie Oei*. The former tends to be seasonal.



Arachnis Maggie Oei



Arachnis Maggie Oei Red Ribbon

Only *Arachnis Maggie Oei* was available at the time of the mission.

2.1.3 Photographic Record

A photo album of a number of Heliconias, Gingers, the three Vandas noted above, both varieties of Spiders, and a series of crotons and cordylines was assembled. The collection of photos was shown to importers, wholesalers and retailers in Brisbane and Sydney. Some samples are shown below.



A collection of approximately the same photos was left with the Pacific Trade and Invest office in Sydney on a separate mission in Sydney in early November. A collection of different photos was shown to three merchants at the Adelaide Flower Market in mid-November.

2.2 Procedure – Solomon Islands

Samples of selected products were harvested at dawn on 4 December 2011. The croton and cordylines were hand cleaned by Ms Maedia and two colleagues. The Vandas and Spiders were sorted into bunches of four. The stems were wrapped in a tissue soaked in water then wrapped in a small piece of plastic. The bunched Vandas and Spiders were then placed in a plastic “sleeve” that was open at one end but wrapped/sealed at the other. The flowers were then taken to Quarantine at Henderson airport in Apia. Ms Maedia advised that when the flowers were placed on the bench at Quarantine there were red ants already present on the bench. She stated that these were hand-swept off by the staff. After inspection, the flowers were placed in a large box that was sealed. The box was then sprayed by Quarantine with Mortein. Ms Maedia said the Quarantine staff did that “because of the ants”.

2.3 Procedure – Australia

Ms Maedia declared the flowers at Quarantine at Brisbane Airport on arrival around 1700 hours on 4 December. She showed the documentation issued by Solomon Islands quarantine service. Ms Maedia then was told to exit Immigration and “wait”.

It was at this stage that Ms Maedia told the author about the ant issue in Solomon Islands. She also explained that the Vandas and Spiders had been vigorously shaken, to the point that some of the petals were shaken from the stems.

After some time, a Quarantine officer came looking for Ms Maedia. He said that the flowers had ants, and then produced a vial with about eight ants. He stated that the whole shipment had to be fumigated. It was not made clear if the fumigation was for the ants or standard procedure. We were given a choice: fumigate or dump. An indicative cost of \$200 was given. A fumigation contractor – Rentakil – was phoned and arrangements made for the flowers to be collected for treatment. The Quarantine official involved was most helpful in facilitating this process.

The flowers were collected from Rentakil at 12:00 on Monday 5 December (Rentakil had indicated that it needed two hours to fumigate and two hours to vent). Again, the officials at Rentakil were most helpful. They recommended that next time we use sleeves that are open at both ends and, preferably, perforated, as this would allow better venting.

The flowers were then taken back to our hotel and soaked in the sink.

Five smaller boxes were procured from a floral art supplier. The flower samples were then distributed into the boxes, with one lot of each the type into each box. The flowers in the boxes were left outside on the balcony because of the residual fumes.

Three boxes of flowers were distributed in Brisbane. Two boxes were taken to Sydney as carry-on luggage and then distributed there.

2.4 Marketing Research

The marketing research undertaken during the mission was based on an understanding of the structure of flower marketing in Australia that occurs beyond the producer level.

Work done prior to the mission⁵ showed that the marketing of imported floricultural products in Australia involves three main value chain actors:

- Importers;
- Wholesalers; and
- Retailers or florists.

The three value chain actors tend to stick to their basic roles. Some importers also wholesale, some wholesalers retail, and some retailers also import. However, these cross-roles tend to be exceptions. With retailers, no matter how much they may like a particular product, they are not likely to import the product themselves. They invariably use an importer or importer/wholesaler due to the difficulties of importing.

Accordingly, the concentration of the mission's research was on the importing and wholesaling functions. Interviews were held with importers and wholesalers in Brisbane and Sydney. As noted, some wholesalers were interviewed at the Adelaide Flower Market on a prior mission in October 2011. Two importers in Melbourne were interviewed by phone. Visits were made to a number of retailers, both stand-alone florists and in supermarket chains, to provide some form of cross-checking of the comments by wholesalers and importers.

Interviews were also held with a number of Australian producers. It is noted that none of the producers interviewed produce the four selected products from Solomon Islands. Furthermore, three of the producers interviewed were of a scale that a Solomon Islander could only dream of. However, the issues explored with the producers were held to be common to producers of all floricultural products in all countries. Some of the issues canvassed included crop rotation under intense production regimes, input supplies, labour, cash flow, customers, government regulation, and industry organisation.

A summary of the Australian field research is that the range of comments on the market potential for the four suites of products investigated was astounding. Each of the four products had people who stated "*love it, where can I get it*" and "*won't sell, not interested, don't bother*".

A less diverse range of comments were made regarding the Heliconia and Gingers in the photos. For two of the gingers there was a common response of "*I like it*".

Another area of common agreement was that Australian quarantine import standards are administered with a very high degree of inconsistency between Brisbane, Sydney, and Melbourne.

⁵ Field work undertaken in 2010 noted above, with field work in Brisbane, Sydney and Adelaide in early November as noted above, and desk-based research.

2.5 Prices and Profitability

There are two aspects for establishing profitability:

- Price received; and
- Costs incurred in receiving the price.

2.5.1 Prices

Two price reporting services were observed:

- General for the Sydney Flower Market.
- The results of the auction held at by Christensen's in Brisbane.

The Brisbane office of a Melbourne-based importer and wholesaler also publishes a wholesale price list.

The data published can only be taken as a broad gauge of general flowers of that particular species.

In all cases, the mission was advised that it had to have a flower that was different, as the retail industry demands something different. Attributes that make a flower different include colour, petal size and shape, blooms per stem, and stem length. None of the price reporting services that the Mission observed were detailed enough to report on these aspects.

Ultimately, prices for special products – such as Solomon Islands Vandas – are established on a day-by-day basis. This reflects seasonality of supply and seasonality of demand. Demand is established by the usual “big days” of Mother’s Day and St Valentine’s Day and, a little more extended, the wedding season, and the corporate gift-giving season.

Thus, to establish the price aspect of the profitability of exporting Solomon Islands floricultural products to Australia, there needs to be a study of significantly longer duration than the five day period that was available for this mission.

2.5.2 Costs

The mission was told by all importers and wholesalers interviewed that the biggest cost element will be freight. The importers and wholesalers also advised on the need to have as large a volume as possible per shipment in order to gain the most advantageous freight rate. Nearly all said that Solomon Islands needs to start with at least “half a pallet”, referring to at least half an AVE plane container. This would be several hundred stems, a volume that must be considered quite large by Solomon Islands’ standards. Finally, the mission was advised that it is desirable to get as many stems as possible into a box in order to reduce the freight per stem.

Freight charges are a combination of volume and weight: Vandas and Spiders (being very light) are charged on a volume basis, whereas Heliconias and, to a lesser extent, Gingers would be charged on a weight basis. Freight charges are levied on a series of products based on hypothetical volumes. The same has to be done with handling charges in Brisbane and Sydney. As with establishing prices, this will require more work than the time allocated for this mission allowed.

3 Floricultural Export Opportunities to Australia: Issues and Opportunities

The work to date falls into two periods:

- Activities undertaken in Solomon Islands and Australia in October and November; and
- Activities undertaken in Australia in December.

The work can best be presented in a value chain format. The value chain for imported floricultural products has, like all value chains, three basic components:

- Production;
- “Bit in the middle”; and
- Marketing.

3.1 Production

3.1.1 Input Supply

- Non-rigorous selection of planting material and non-rigorous separation of material means that pure stands of consistent material are not available. Without consistent product, Solomon Islands is handicapped in being able to offer with confidence product that meets the market’s expectation.
- Appropriate agro-chemicals for production, pest and disease control, and post-harvest preservation are virtually non-existent. This is likely to become a problem with more intensive commercial production.
- The same comment is applicable to extension advice.

3.1.2 Pests and Diseases

- Pests and diseases exist for Heliconias and Gingers. They seem more prevalent for Gingers than Heliconias. There is no consistent information as to what the pests and diseases actually are.
- Product grown in shade seems more susceptible to pests and diseases than product grown in the open.

3.1.3 Production

- All production is household based; that is, there is no commercial production. While some producers work in clusters to produce what appears to be commercial volumes, this is not common.
- Little knowledge appears to exist as to how to go about a planned production process.
- There is little understanding of the need to rotate in order to reduce the potential for pest and disease build-up due to mono-cropping. Concomitantly, there is little understanding of the need to maintain soil health.
- Labour supply could become a problem at peak harvest periods.
- Farm labourers would need to be trained.

3.1.4 Harvesting

- On the whole, this is not professionally done. However, some producers linked to specific florists have good techniques, such as harvesting in the cool of the dawn, and using secateurs that are cleaned continuously.

3.2 'Bit in the Middle'

This term is used to describe the various steps that link production with marketing. In most supply chains, the activities cover post-harvest treatment, packaging, grading, transport, and storage.

3.2.1 Post-harvest Treatment

- Knowledge to reduce field heat exists but is not widespread.
- Equipment to reduce field heat, such as simple bath-sized tubs, is missing.

3.2.2 Packaging

- No packaging material for export is available locally: this includes padding for Vandas and Spiders, sleeves, vials, and boxes.



- There is no concept of appropriate dimensions of export boxes for the various plane configurations.
- There will need to be a trade-off in economies of scale in packaging with (i) weight that is acceptable to airport workers and (ii) packaging size that will not damage the flowers.



- Considerable experimentation will be required to develop appropriate within-box packing for the different species.

3.2.3 Storage, Assembly and Inspection

- There is no appropriate infrastructure currently available for storage / central assembly / inspection by Quarantine.

- There is a lack of knowledge of appropriate storage temperatures for candidate products.

3.3 Marketing

3.3.1 Supply Calendar

- There is considerable variation in what are the high-low seasons for the different products. However, there is little precise knowledge of these calendars. Knowledge is needed on a near two-week basis.
- There is a need to develop seasonal supply calendars.

3.3.2 Supply Volume

- There is a need to develop a minimum volume in order to attract buyer interest and to achieve economies of scale.

3.3.3 Nomenclature

- There is no consistent nomenclature. This makes it difficult for buyers in Australia to specify what they want and for exporter(s) in Solomon Islands to advise suppliers exactly what they want.

3.3.4 Market Information

- Some market information does exist in Australia. There is a price reporting service at the Sydney Flower Market. The auction system operated by Flower Auctions provides some data. However, neither service produces prices in a consistent manner that allows for the development of time-series price profiling. Prices are available on a one-off per day basis. Even if reliable raw price data was available, there is limited ability in Solomon Islands to access this data via the internet and to interpret and use the data.

3.3.5 Business Skills

- Floriculturists in Solomon Islands have a generally poor level of marketing and business skills. This includes financial management and maintaining close communications with all actors along the chain. The need to manage currency will be a major challenge.
- The need to adopt a small volume – high value approach means that close supervision along the whole chain is critical.
- At the moment, none of the floricultural businesses in Solomon Islands appear to have a business structure that would provide a suitable basis for an export business.

3.3.6 Markets

- Brisbane is the smallest market of the three eastern state capitals. Melbourne is the largest, then Sydney.

3.3.7 Australian Quarantine Inspection Service (AQIS)

Melbourne, as the destination of the largest volume of imported orchids into Australia, has by far the most cooperative Quarantine system. The mission was informed that this is because officials do not

have time to linger over detailed one-by-one inspections due to the volume handled. It is also assumed that, because Melbourne has imported flowers for such a long time, importers are relatively experienced in the procedures required.

Sydney quarantine is the next most cooperative.

Brisbane is considered to have the most interventionist quarantine inspection. Again, it is assumed that this is because not many flowers are imported directly into Brisbane and thus the service (and importers) are relatively inexperienced in handling floricultural products. The mission was advised by one importer in Brisbane that he has his products consigned to Sydney where they are cleared by his agent then placed on overnight refrigerated transport to Brisbane.⁶

AQIS can be a major challenge, but when the relationship is nurtured it can change from “ambulance at the bottom of the cliff” to “ambulance at the top of the cliff”, providing pro-active and helpful support. However, this takes time and effort. Keeping abreast of changes in quarantine regulations will require a committed effort.

3.3.8 Australian Regulations

Australia has a plethora of rules and regulations that could affect Solomon Islands exporters. There is a need for exporters to develop a reasonable understanding of these.

3.3.9 Product Assessment

Vandas

A number of interviewees stated that our Vandas were not really Vandas. One spent several minutes on the internet before verifying that it was actually a Vanda.

Market-based comments included:

- *Diana* would be good for the wedding trade;
- *Agnes Joaquin* looks too much like a sweet pea;
- Petals are fragile and would not travel well;
- Need longer stems;
- Change the name away from “Vanda” in order to create a new product;
- All three Vandas for which photos or samples were shown are unique and efforts should focus on these;
- Do not try to work with the blue variety;
- Make five not four to a bunch;
- Grade for size; and
- Provide special packaging to increase protection.

Spiders

Market-based comments included:

- Red/Maroon/Tiger varieties used to be popular in Brisbane but have not been seen for a while – possibly this is an opportune time to reintroduce them;
- Colours need to be strong, not pale;

⁶ This supports comments by the Melbourne importer who recommended that product be consigned to Sydney for clearing and then onward shipping.

- Stem length needs to be at least 30 cm; and
- Soxing (that is, encasing the flower in an expandable polythene sock), is recommended. Soxing keeps the flower together and protects against rubbing and most forms of non-violent jolting.

Cordylines

A relatively large number of cordylines were observed in Brisbane and Sydney markets. At the Sydney Flower Market, one vendor specialises in just foliage. He was offering a large variety of foliage. Within each foliage type, for example crotons and cordylines, he offered considerable variation in terms of shape, size, and degree of variegation.

Market-based comments included:

- The leaf needs to be quite long;
- Striped varieties are better than plain coloured; and
- Red is preferred to other colours.

Crotons

The division of market-based opinion between “like” and “don’t like” was more marked with crotons than with the other three product lines.

Market-based comments included:

- Must be big-leafed. Leaf sizes indicated were at least 6 cm wide and 30 cm long;
- Must have as long a stem as possible;
- There is strong competition from Australian-grown products;
- Leaves with yellow have greater market appeal; and
- Grading for damage is important.⁷

Heliconias

There was generally good comment regarding the potential for some of the Heliconias of which photos were shown.

Market-based comments made in the absence of actual samples included:

- Stem length must be long. While different lengths were cited, the minimum stem length was 60 cm, and the maximum was 90cm: most preferred 70–80 cm;
- Flowers per kilogram of stem is seen as critical in relation to minimising airfreight;
- Product must be laid head-to-toe in the boxes to achieve economies of scale in packaging and transporting. It is possible to pack 90 cm stems with 60 cm stems, thereby allowing for the maximum number of stems per box;
- Too heavy a box (that is, more than 20 kg) will cause problems with airport handlers; and
- Reds are preferred to yellows, especially all-yellow.

Gingers

There was near-universal approval of the two products shown below.

⁷ Ms Maedia stated that the cut/tear seen on one of the leaves was caused by the vigorous shaking by Quarantine in Brisbane.



Double Makira



White Jungle King

Market-based comments included:

- There will be work required with the Double Makira and the White Jungle King to ensure that the timing of harvesting will allow around 10 days of opened flower; and
- White Jungle King must be soxed to provide protection.⁸

⁸ The mission was told that the brown on the under-side of the flower in the photo was caused by damage to the flower.

4 Lessons from Market Research

Using the value chain headings noted above, the following lessons for export development are derived from the market research undertaken to date.

4.1 Production

Issue	Lesson
Input supplies	Agro-chemicals: Work with Farmset (Honiara) to introduce appropriate products. Plants: For consistency of colour, develop professional floricultural activities. Plants: For new colours, provide skills in cross pollination.
Pests and diseases	Pests and diseases need to be identified with common names. Appropriate treatments then have to be developed and promulgated.
Production	Commercial production training needed. Crop rotation needs to be stressed. Soil health, even if only through the introduction of organic matter, needs to be addressed. The possibility of irrigation needs to be assessed.
Harvesting	Timing of harvest in terms of product life has to be refined. Most producers currently harvest when flowers are in full bloom.

4.2 'Bit in the Middle'

Issue	Lesson
Post-harvest treatment	Extension support is required to demonstrate the need to reduce field heat. Simple equipment is needed.
Packaging	Punjas (Solomon Islands) could be a potential supplier using their Fiji production base and low transport costs associated with piggybacking on monthly shipments from Fiji. Need to develop packing standards. Fiji export boxes are based on the configuration of 737 aeroplanes. There is the need to redesign packaging for the A-320s that service Solomon Islands. Need specialist wholesale packaging material such as sleeves, vials, tissue, padding.
Storage	Need a central cool-store based assembly and inspection point.

4.3 Marketing

Issue	Lesson
Market destination	Although Brisbane is the smallest of the three eastern markets, its size makes it the preferred market to start with, as the minimum order size for Melbourne and Sydney is likely to be beyond the Solomon Islands' ability to supply.
Supply calendar	Need to develop a supply calendar.
Nomenclature	Identify products by their commonly accepted names – Vandas, Spiders, Crotons, Cordylines, Gingers, and Heliconias.
Business skills	Need to develop business and marketing skills. Need to develop appropriate business structure.
AQIS	Develop contacts in Sydney and Brisbane.
Regulations	Work with Quarantine Solomon Islands to develop close knowledge of Australia's quarantine requirements. Develop capacity to remain informed of Australian regulations that relate to floricultural exports.

Issue	Lesson
Product – Vandas	Vandas have a market in Australia, more so in Brisbane compared with Sydney. Do not change the name. Packaging will be critical.
Product – Spiders	There is a market in Australia for Spiders, especially the darker coloured ones.
Cordylines	On balance, there is not a big demand in Australia for cordylines from Solomon Islands. A small shipment could be sent on a trial basis to the importer and wholesaler in Brisbane, perhaps as a consignment 'filler'.
Gingers	There appears to be good market demand for the Double Makira and the White Jungle King varieties.
Crotons	There is not a big demand in Australia for Crotons from Solomon Islands. The exception is an importer and wholesaler in Brisbane who work closely together.
Heliconias	Demand seems to be limited to the non-yellow types.

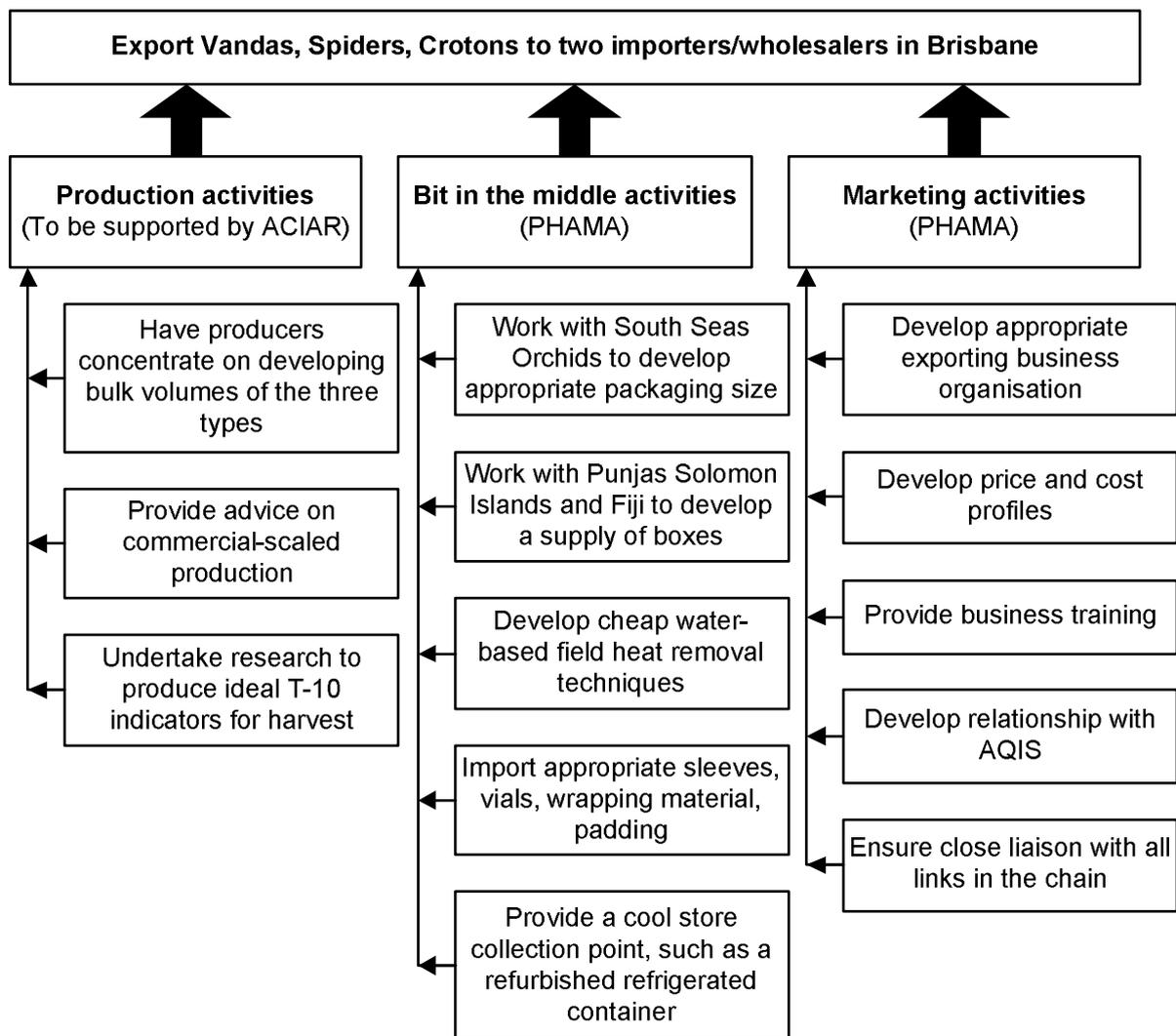
5 Future Action

This report has three main recommendations:

- Undertake an initial trial shipment of Vandas, Spiders, and Crotons in early 2012 to provide an initial test of the pathway.
- If this shipment is successful, provide further support for up to five subsequent shipments to initiate development of the capacity required to sustain export activity.
- Commence work on the development of quarantine protocols covering the importation of Double Makira and White Jungle King Gingers into Australia.

To achieve the first two recommendations, a number of issues need to be targeted. These are presented in the three-step value chain format in Figure 5-1. Proposed responsibilities have been assigned to the Australian Centre for International Agricultural Research (ACIAR) and PHAMA.

Figure 5-1 Three-step value chain format



Activities relating to the production improvement component will be picked up by an ACIAR project that has been developed in coordination with the proposed PHAMA activity (HORT/2011/065). It is proposed that the other components would be supported by PHAMA as a follow-on from this study (see Appendix B for Terms of Reference).

Table 5-1 provides further detail on the resources proposed for the PHAMA-funded activity:

Table 5-1 Proposed resources for PHAMA-funded activity

Activity	Comment	Estimated cost
Value Chain Specialist / Activity Coordinator	Overall coordination of the activity: total input of 30 days	
Purchase of initial supplies of boxes and packaging materials	Involving SSO, and Punjas (Solomon Islands and Fiji)	\$2,000
Purchase of miscellaneous materials to trial field heat removal techniques	Plastic tubs, hoses, sprinklers, etc.	\$1,000
Hire of refurbished reefer for 5 months	For consignment assembly, chill-down and storage, and to provide a centralised point for Quarantine inspection	\$6,500
Development of an appropriate business organisation	Local Technical Assistance (TA) for 2 weeks	\$1,000
Business skills training	Includes training in correspondence, forex management, export documentation, etc. Local TA for up to 1 month	\$2,000
Export consignment costs (including purchase of product, freight, and certification)	Six shipments at \$1,000 each	\$6,000
Travel and daily subsistence allowance (DSA) for exporter and local facilitator to accompany the first two consignments to observe and learn	Four trips at \$2,500 each	\$10,000
Local facilitator to provide operational support for implementation of the activity	Up to 6 weeks total	\$1,500
Travel to Australia for Solomon Islands Quarantine Officer to liaise directly with AQIS officials and importers re: import requirements and Australian handling procedures	One trip, 1 week duration	\$3,000

Proposed timing for the follow-on activity is from mid-February through to June 2012.

Results of the trial shipments (including documentation of problems encountered and lessons learned) will be reported after the first consignment, and again at the end of the exercise.

There will be a stop-go point after the first consignment, based on the results achieved. This assessment will be made by the Value Chain Development Specialist in liaison with the PHAMA Team Leader.

6 Limitations

URS Corporation Pty Ltd (URS) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of AusAID and only those third parties who have been authorised in writing by URS to rely on the report. It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this report. It is prepared in accordance with the scope of work and for the purpose outlined in the Proposal dated 20 January 2011.

The methodology adopted and sources of information used by URS are outlined in this report. URS has made no independent verification of this information beyond the agreed scope of works and URS assumes no responsibility for any inaccuracies or omissions. No indications were found during our investigations that information contained in this report as provided to URS was false.

This report was prepared between August 2011 and March 2012 and is based on the conditions encountered and information reviewed at the time of preparation. URS disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

Appendix A

Appendix A References

- Cribb, PJ 2008, 'The slipper orchids of New Guinea and Solomon Islands orchidacea' *Curtis's Botanical Magazine*, 3:4 (pp. 159–160)
- Hunt, PF 1969, *Orchids of Solomon Islands*, Royal Botanical Gardens, Kew
- Lewis, B & Cribb, PJ 1991, *Orchids of Solomon Islands and Bouganville*, Kew Publishing
- Maedia, A & Vinning, G 2009, *Agriculture for Growth: learning from experience in the Pacific. Solomon Islands Flower Case Study*, FAO SAPA, Samoa, November
- Pikacha, P 2007, 'Native Orchids of Solomon Islands', *Melanesian Geo.*, October–December
- SISAS, 2006, *Solomon Islanders Smallholder Agriculture Study*, AusAID, Canberra. (This is a five volume study involving 13 authors.)
- Stice, K & Sale, A 2009, *Solomon Island Ornamental Horticulture Value Chain – Mapping Report*, Strengthening Rural Value Chains Through Enterprise Development, Agricultural Livelihoods Unit, CSP, Honiara, November
- Stice, K & Sale, A 2008, *Betikama Cut Flower Value Chain – Mapping Report*, Strengthening Rural Value Chains Through Enterprise Development, Agricultural Livelihoods Unit, CSP, Honiara, November
- Vinning, G, Sale, H, & Hughes, O 2009, *Using value chain analysis to develop the floriculture industry in Solomon Islands. Occasional Note – Marketing: 13/09*, Value Chain Enterprise Development, Agricultural Livelihoods Unit, Honiara

Appendix B

Appendix B Terms of Reference for Follow-on Activity

TITLE: Trial shipments of cut flowers and foliage to Australia

ACTIVITY CODE: SOLS08

CONSULTANT NAME AND POSITION: Grant Vinning, Value Chain Development Specialist

BACKGROUND:

Solomon Islands has a diverse range of tropical cut flowers, orchids and foliage. Considerable work has been done by the AusAID-funded Agricultural Livelihoods Program in recent years to develop women's groups to supply cut flowers and foliage to the local market. A logical next step is to begin to develop an export trade.

A scoping study was completed in late 2011 to assess the potential for developing cut flower and foliage exports to Australia (PHAMA Activity SOLS04; Technical Report 16). This study, which reviewed supply conditions in Solomon Islands as well as market conditions in Australia, concluded that there is sufficient potential – particularly for orchids (especially Vandas and Spiders) and various forms of foliage (especially Crotons) – to warrant further support for trial shipments to test the export pathway and develop the skills and confidence required for Solomon Islands producers and exporters to initiate a regular trade. The report also recommended that further work be undertaken by PHAMA to develop/clarify Australian import protocols relating to the import of heliconias and gingers (especially the Double Makira and White Jungle King gingers) to Australia.

The scope of support provided by PHAMA under this activity will be focussed on post-production handling and marketing activities (field heat reduction, cool storage, development and provision of packaging, development of packing and handling techniques, transport and marketing), with emphasis on developing capacity of producers and exporters to sustain a commercial operation. Support to growers for necessary improvements in production activities will be provided under a separate ACIAR-funded project (HORT/2011/065) that has been purpose-designed to complement and be fully coordinated with the PHAMA activity. The two projects will be managed by the same short term adviser (STA) with an appropriate split of funding between AusAID and ACIAR.

SCOPE OF WORK:

Key tasks under the PHAMA-funded elements of the activity include:

1. Provide exporters with analysis of prices and costs of exporting Vandas, Spiders, and crotons to Australia.
2. Facilitate the development and supply of appropriately sized export boxes and packaging material.
3. Facilitate the establishment of appropriate post-harvest preservation techniques and capacity, including provision of a temporary cool storage facility for export assembly and inspection.
4. Initiate the development of an appropriate business structure and business skills to manage floriculture exports.
5. Liaise with selected shippers, importers and AQIS to establish arrangements for an initial trial shipment and up to five subsequent commercial shipments of selected floricultural products into Australia.
6. Liaise with growers and exporter(s) to coordinate production, processing, packaging, and shipment.
7. Work with Solomon Islands Quarantine, growers and exporters to ensure that the consignments comply with Australian quarantine standards.

Appendix B

8. Monitor the movement of the shipments through the export pathway, identifying issues and solutions.
9. Coordinate closely with the related ACIAR project to ensure that necessary production-improvement activities are fully coordinated with export development activities.
10. Provide a brief report to the Solomon Islands Market Access Working Group (MAWG) outlining results achieved following the initial trial shipment, and again on completion of the commercial shipments.

Addressing the above will involve work in both Solomon Islands (with growers, exporters and Solomon Islands Quarantine) and in Australia (monitoring product out-turn, handling, quarantine issues and market reaction).

Note that work on clarifying Australian import protocols for heliconias and gingers will be separately coordinated by the Program Management Office.

DELIVERABLES:

1. Initial trial shipment to selected Australian markets.
2. Up to five commercial shipments to selected Australian markets.
3. Development of an appropriate business structure and skills to manage floricultural exports.
4. Two reports to the Solomon Islands MAWG outlining results achieved (following the initial trial shipment, and again following completion of the commercial shipments).

CONSULTATION WITH:

- Potential growers, exporters and other value chain participants in Solomon Islands
- Potential buyers/importers in Australia
- ACIAR, and in particular Project HORT/2011/065
- Solomon Islands Quarantine
- AQIS
- PHAMA Quarantine and Biosecurity Specialist concerning possible quarantine issues
- Pacific Islands Trade and Investment Commission (PITIC) (Sydney)
- Solomon Islands MAWG members.

OTHER RESOURCES (INDICATIVE)

Item	Cost (AUD)
Purchase of initial supplies of boxes and packaging materials	2,000
Purchase of miscellaneous equipment for field heat removal	1,000
Hire of refurbished reefer for 5 months	6,500
Development of an appropriate business structure (local TA for 2 weeks)	1,000
Business skills training (local TA for up to 1 month)	2,000
Export consignment costs (six shipments at \$1,000 each, including purchase of product, freight, and certification)	6,000
Travel and DSA for exporter and local facilitator to accompany the first two consignments (four trips at \$2,500 each)	10,000
Local coordinator/facilitator (up to 6 weeks full time employee)	1,500
Travel to Australia for 1 week for Solomon Islands Quarantine Officer to liaise directly with AQIS officials and Australian industry representatives re: import requirements and Australian handling procedures	3,000
TOTAL	33,000

Appendix B

Note that all costs associated with the initial consignments will be financed directly by PHAMA. Commercial returns from these consignments will be retained as seed capital by the business organisation established to facilitate future exports.

DURATION AND TIMING:

Work is scheduled to take place over the period mid-February to June, involving up to 30 days total input from the Value Chain Development Specialist.

Activity to be completed and reported by the end of June 2012.

TRAVEL:

Suva–Honiara–Suva (Grant Vinning, up to two trips)

Suva–Sydney/Melbourne–Suva (Grant Vinning, one trip)

Travel to Australia by Solomon Islands facilitator and exporter to Australia to accompany first two consignments, as detailed in above table.

REPORTING TO:

Richard Holloway (Team Leader)



URS

URS Australia Pty Ltd
Level 4, 70 Light Square
Adelaide SA 5000
Australia
T: 61 8 8366 1000
F: 61 8 8366 1001

www.ap.urscorp.com