# USP-IRETA / CTA Regional Workshop on Food Processing and Value Adding in the Pacific October 10-14, 2005 Honiara, Solomon Islands

# Report



October 10-14, 2005

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## **Foreword**

Food processing and value adding is an old traditional concept practiced by Pacific Island communities for centuries. Drying, salting, bottling of agricultural crops and meats have provided long term food security needs to the people to preserve food during seasonal gluts in the tropics. These practices still continue today but with the advent of modern preservation techniques such as refrigeration, vacuum packing etc, the opportunities for value adding has increased tremendously.

Despite these opportunities and access to expertise, facilities and information on food preservation and value adding, the progress in the Pacific Island countries has been relatively insignificant considering the potential that exists.

Studies done some years back suggest that post-harvest losses in agricultural commodities in the Pacific accounts for as much as 30% of the total food production. Imagine the impact if the Pacific Island countries were able to prevent these losses through proper post-harvest handling and value adding. The result would be significant increase in food production, income generation, economic activity, savings in foreign exchange losses etc.

Narrow export commodity base continues to be the most serious problem of agricultural development in the PICs. The workshop in the Solomon Islands clearly underscored the interest among people of PICs at the village level to use locally available fruits, vegetables, roots to value add to prevent losses and secure food and income security.

The PICs have just about all ingredients to make value adding a major food industry. Our experience shows that the motivation and interest amongst the people is huge from the workshops IRETA organized in Fiji, Samoa, Vanuatu and the Solomon Islands in the past several years.

In my view, the most important needs that must be addressed now is for PICs to strengthen their policies in food processing and value adding and provide the necessary research and extension support, and training to mobilize the communities into action.

Regional organizations in this respect have a major role to play in supporting the national governments achieve the desired results.

Mohammed Umar

<u>Director, Institute for Research, Extension and Training in Agriculture</u> (IRETA)

# USP-IRETA / CTA Regional Workshop on Food Processing and Value Adding in the Pacific October 10–14, 2005 - Honiara SOLOMON ISLANDS

#### **REPORT**

#### Introduction:

The 2005 Regional workshop on Food Processing and Value Adding in the Pacific was held in

Solomon Islands 14<sup>th</sup> October countries Cook Islands Kiribati  $(1)_{i}$ Guinea  $(1)_{i}$ Solomon Islands and Vanuatu (1). participants took practical workshop. The workshop was

demonstrate



from the 10th -2005. The represented were (1), Fiji  $(1)_{.}$ Papua New Samoa  $(2)_{i}$ (41), Tonga (1) All together, 49 part in this very oriented one week mainly spent to basic methods to

value add using local produce to capacity build the income earning capacity of rural farmers including the women and youth. Five group exercises were also undertaken to enable the participants of the workshop to identify and share difficulties that the Pacific island countries face when trying to preserve food during off-season and also to discuss solutions to overcome these difficulties.

On the final day, over 50 local nut growers and processors attended the special session on how to

preserve and value add canarian nuts. 25 products were made from 17 different commodities. Considering the time frame of the workshop, the participants were very happy that they were able to learn a lot during the workshop.

# Overall Objectives:

- ✓ To increase the income earning capacity of rural farmers including the women and youth.
- ✓ To improve food security during off-season, and help save on imports.



# **Specific Objectives:**

To promote additional appropriate technologies to encourage promotion of the processing sector at both the commercial and village level.

# Organization of the Workshop:

#### Pre-workshop preparation:



Before the week of the

workshop, a lot of preparations were made by the Director of IRETA and also the resource person, Mr. Charles Long Wah. IRETA's Training Manager and ALO Coordinator also assisted in preparing the local materials for the workshop. Upon their arrival in Solomon Islands, the first step was to find a venue where the workshop will take place. Because of the nature of the workshop, which will involve a lot of

cooking, cutting, peeling, grating, etc of fruits, made it very difficult to find a suitable venue where all or most of the kitchen supplies are available. Although, the conference room of the King

Solomons Hotel was suitable place. The Department of Agriculture also considered, but after small and had stoves, kitchen sink, etc to after long hours of looking suitable place, it was finally workshop will take place at Marketing Authority



arranged, it was not a conference room of the in Solomon Islands was viewing it, it was just too equipments such as host such workshop. So and searching for a decided that the the Commodities Export (CEMA) conference area.

After agreeing on the venue of the workshop, the second step was to look and gather all the

materials needed for the workshop. Again, the Director, IRETA and Mr. Charles Long Wah went to the local market to see what raw materials were available that can be used during the workshop. Here, they bought fruits such as mangoes, pineapples, tomatoes, bananas, chili, capsicum, cucumber, pawpaw, coconuts, peanuts, etc. After buying this raw material, the next step was to clean, peel, split bananas, grated coconut without cream; dehydrate bananas and mangoes even before the workshop started. Next, was to locate a place where



we were able to hire stoves. Pots, knives, cutting boards, peelers were also bought from the supermarket to be used during the workshop.

Finally, after all the hard work of preparing the raw materials for the workshop, the group (Director of IRETA, Mr. Charles Long Wah, Joyce Tulua, Ramona Sulifoa and Mr. Moses Pelomo of CEMA set the room and put up the display from Kava Store Anabrou, Vanuatu. Upon completion of this, the workshop was good to go the next day (Monday, 10 October 2005).

Following the opening ceremony and group photograph, the workshop began.

The Director IRETA, Mohammed Umar conducted the group exercise on Opportunities for food



processing and value adding of Pacific produce. During this exercise, the participants worked in three groups to identify the produce available within the Pacific region. This took up the rest of the morning. In the afternoon, the groups presented their findings of the exercise given in the morning. Following this, Mr. Charles Long Wah introduced to the group what is to be done in the next three days of practical training.

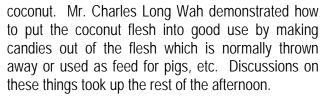
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overseas participants then went for a field visit to the local market to observe the produce available which they will add value to during the one week training. This field visit took up the rest of Day One.

On Day two, the Director presented the summary of exercise one to the group. Practical demonstrations on value adding preserved pawpaw, tamarind, mango and preparation of cucumber pickles



completed the morning. The group then broke for lunch. The participants during the demonstration and discussion in the afternoon learnt how to prepare and cook pawpaw jam and chutney. This was then packed in sterilized jars. The most common raw material within the Pacific is the





The Director began Day 3 with Exercise two on the question "If you were to advice your

government in regards to a follow up of this workshop, what would your advice be? The three groups then presented their findings on the question. Demonstrations on cooking of chili in oil for pickles, preparing cucumber pickles, bottling peeled tomatoes, fruit in syrup and dehydrating vegetables and fruits were undertaken during the morning session. The General Manager of Commodities Export Marketing Authority, Mr. Moses Pelomo invited all participants for lunch. In the afternoon the participants



took part in making colored coconut candies. The participants again broke into their groups to discuss and complete exercises 3 & 4, which was given by the Director, IRETA. The groups were to identify three major lessons learnt from the workshop and what are the value adding products that they will try at home after the completion of the workshop followed by demonstrations on Noni juice by Chikara Yoshida (Samoa) and Andrew Rauru (Cook Is). Further discussions on the day's activities completed Day three.

On Day four, another group exercise was presented by Director, IRETA. The exercise was to discuss and present in groups their findings to the following three questions: (1) Identify as a group the opportunities available to farmers and food processors for value adding, (2) What are the major



problems facing this industry and (3) How can we overcome these problems? Following this, demonstrations on sugar-coating of peanuts and terminalia nuts, canarium nuts were undertaken. Mr. Charles Long Wah also explained the shelf life – duration on different packaging. Demonstrations and discussions took up the rest of Day 4.

The final day began by the Director of IRETA, presenting to the participants the summaries of all exercises 1 – 5 to the groups. Following this, a

special demonstration session for over 50 local nut growers and processor on methods of preservation and value adding of canarian nuts (sugar coated) took up the rest of the morning. The group then broke for lunch. At 1:00pm, the summary of the workshop, conclusions and recommendations were presented to the group followed by the workshop evaluation. At 3:00pm, the Regional workshop on Food Processing and Value Adding in the Pacific was officially closed by the Minister of Agriculture and Livestock. Hon. Enele Kwanairara. Throughout the one week's workshop, more than



50 participants and observers took part in learning how to value add local available produce.

By doing this, they will be able to have food on the table daily and earn income to assist with school fees and daily needs within the home.

The organizers of the workshop thanked the Technical Centre for Agricultural and Rural Cooperation (CTA) during the official opening and closing of the workshop for their continuous interest and support to the Pacific.

# Opening of the workshop:

Official opening of the Workshop: Hon. Enele Kwanairara, Minister of Agriculture and Livestock, Solomon Islands.

In his official opening of the workshop, the Hon. Minister stated that one of the best ways to broaden the agriculture commodities export base is to add few more crops to the export list. This however is not always possible due to the fact that many of the commodities are faced with stringent quarantine and quality requirement imposed by the importing countries in the region, principally Australia and New Zealand. He also pointed out that the workshop will provide the



participants with first hand experience on food processing and preservations techniques. It will also enhance the knowledge of the procedures involved in processing, preservation and packaging. He continued on by encouraging all the overseas and local participants to acquire as much knowledge and experience as possible from the resource person that will enable them to teach others within their individual country to venture in to food processing and value adding.

# Outputs of the workshop

#### **Working Groups**

The purpose of this group was to allow members to work together for all practical sessions and any exercises and group discussions. As this workshop was very much practical oriented, the group members decided the commodities that they would like to work with in addition to those that would be demonstrated. The participants were divided into



three working groups. A discussion leader was decided by each group to mainly help guide the discussions.

The exercises were given to have the participants work in groups and identify commodities which they would like to learn how to preserve and also to value add during the workshop. The summary of exercises undertaken by the participants is given below.

# Common Pacific commodities with potential for value adding:

	COMMODITIES	PRODUCTS
1	Vanilla, Chilli, Beetle nut, Mango, Pineapple, Black Pepper, Peanut, Ngali Nut, Breadfruit, Banana	Dried
2.	Guava, Mango, Pawpaw, Pineapple, Banana	Jam
3.	Cassava, Banana, Breadfruit, Sweat Potato, Taro	Chips
4.	Ginger, Coconut, Pawpaw	Sweets
5.	Mango, Pineapple	Chutney
6.	Kava, Noni, Coffee, Cocoa, Tumeric, Chilli, Pepper	Powder
7.	Coconut	Virgin Oil Soap Desiccated cream Fuel Vinegar
8.	Taro, Breadfruit	Flour
9.	Tomato, Cocoa, Peanut	Paste
10.	Soursop, Mango, Papaya, Pineapple, Guava, Noni, Tomato	Juice
11.	Ngali Nut	Honey coated Chocolate coated Oil Cake decorations
12.	Breadfruit	Biscuit
13.	Cucumber	Pickles
14.	Carambola	Juice Jam Chutney Pickles
15	Lime	Juice Jam Chutney Dried Pickles

16	Rambutan	Juice
		Jam
		Syrup

# Output 1: First hand experience shared on appropriate food processing, preservation and packaging technologies.

Recipes of some of the products that were undertaken during the workshop are as follows:

# 1. MANGO CHUTNEY

#### **INGREDIENTS**

6 kilos - green mangoes – peeled and cut in

cube pieces

8 kilos - white sugar

2 bottles - 500 ml white vinegar (or 1 litre)

1 cup - salt

6 big - onions-sliced

5 big - red capsicum - sliced 1 piece - ginger - sliced



# MANGOES CHUTNEY

#### **PROCEDURE**

# STEPS KEY POINTS

1.	Mix in a pot	-	Vinegar, Sugar,
1.	IVIIX III a pot		viiicgai, Jagai,

& Salt

2. Boil & Keep Stirring - Until clear and vinegar, sugar, & salt dissolved

3. Put Mangoes, Onions & Ginger - Into mixture in pot

4. Cook all mixture - Until mangoes are transparent

5. Add capsicum - Into mixture

6. Cook - Until mixture thickens (approx 1 ½ hour)

7. Fill bottles with chutney - Up to ½ inch from mouth of jar

8. Seal with the lid - One turn only

9. Sterilize bottles of chutney - In pot of boiling water for 20 minutes

10. Remove bottles of chutney - From boiling water

11. Re-tighten the caps
12. Leave to completely cool
13. After removal from boiling water
14. On tables or wooden surface

13. Wash in cold water - To remove stickiness from bottles

14. Wipe bottles - Completely dry

15. Put on labels - One in front and one at the back

# 2. COLOURED COCONUT BALLS

#### **INGREDIENTS**

3 kilos - dehydrated white grated

coconuts

1 liter - corn syrup

or - sugar + 3 tablespoons of water

or - light corn syrup freeze for 2 hours before

mixing with white grated

coconuts



3.

# STEPS KEY POINTS

1. Grated dry white coconuts - Remove any non-white flesh

2. Squeeze the coconut cream out - With a cloth to remove the milk

juice

Dry the coconut flesh meat - In the sun for 2

days

4. Move the coconut flesh meat
 5. Pound Or Grind
 6. Add 1 liter corn syrup
 To ensure all pieces are dry

 To nearly powder form
 With 3 kilos of dried coconuts

7. Roll into ball size - Uniform size

8. Dehydrate coconut balls - In the dehydrate machine for ½ day

Or in the sun

9. Add coloring - Blue, Green, Red, Orange, and Yellow

10. Dehydrate in the Dehydrator - ½ day

11. Pack in cellophane - Seal afterwards (Last 3 months only)

11a. Pack in jars - With twist cap (last 2-4 years)

Sterilized Jars
Label
In the Dehydrator
As prepared

# 3. DRIED MANGOES

#### **INGREDIENTS**

2 kilos - green mangoes – peeled and cut

in halves

1 kilos - white sugar 1 liter - water







#### **PROCEDURE**

#### **STEPS**

- 1. Boil sugar & water in stockpot Until dissolved
- Put in peeled and cut in halves
   Remove pot from stove or fire
   Leave for 5 minutes until bubbles show
   Put a lid or small tin with water on top of mangoes to drown completely in the juice

**KEY POINTS** 

Stir to dissolve

- 4. Leave to cool Must be completely cool
- 5. Put ½ kilo sugar into syrup



6. Put in mangoes and repeat the - 7 times same

process

7. Remove mangoes from syrup and - Dry for 2 days

put into the dehydrator

8. Pack in cellophane or bottles - Not more than

½ inch of top of

jar

9. Label - In front and back of packaging

# 4. CHILLI IN OIL

#### **INGREDIENTS**

In the practical session during the demonstration

7 kilos - red chili 2 liters - cooking oil 2 kilos - white sugar

125g - salt



#### **PROCEDURE**

#### **STEPS**

1. Heat the cooking oil - In pot

2. Add salt - While heating

3. Stir immediately - Salt must be dissolved

4. Stir in sugar - To dissolve

5. Stir in chili - Keep stirring to avoid

burning at the bottom of

pan

6. Cook for about one hour - Until mixture boils and

well cooked

**KEY POINTS** 





7. Pour into clean sterilized bottles - Not more than ½ inch of

top of jars

8. Seal the lid onto the jars - Tightly

9. Clean the jars - in cold water
10. Leave to cool - Completely cool

11. Label and put onto shelves

# 5. <u>PICKLED CUCUMBER TRANSPARENT</u> (QUICK METHOD)

#### **INGREDIENTS**

1 kilo - Medium sized young

green cucumber

2 cups - vinegar 1 tablespoon - salt

1 teaspoon - mixed spices



#### PROCEDURE

# STEPS KEY POINTS

1. Measure enough cold water to cover - In the pot

the cucumber

2. Boil the water in a pot - Until boiling point

3. Remove from stove or fire - Immediately when boiled

4. Drop cucumber in boiling water - Slowly to avoid splash of boiling water

5. Put a lid or small tin with water on top of cucumber to drown completely in the water

6. Stand overnight and drain water

7. Repeat the same procedure - For 3 days

8. Slice the cucumber - 2mm

9. Boil the pickling solution - 2 cups of vinegar, 1 tablespoon of salt &

teaspoon mixed spices

10. Pack the cucumber in sterilized jars - Not more than ½ inch of top of jars

11. Pour pickling - Enough and a little above to cover the cucumber

12. Seal the jars - Tightly

13. Pasteurize - In boiling water for 20 minutes



- 14. Leave to cool Completely cool
- 15. Label Front and back

## 6. PAWPAW JAM

#### **INGREDIENTS**

5 kilos - ripe pawpaw peeled, remove seeds and cut

into cubes

4 kilos - white sugar

#### **PROCEDURE**

## <u>STEPS</u> <u>KEY POINTS</u>

1. Combine sugar and pawpaw - In a pot

2. Cook and keep stirring - To avoid burning at the bottom of the pot - Ensure mixture is cooked &

moderately thick

Pour into clean sterilized - Not more than ½ inch of top of iars

5. Seal tight - Turn clockwise once6. Processed in boiling water - At least 20-30 minutes

7. Seal tightly - Last turn clockwise

8. Leave to cool
9. Clean in cold water
To remove stickiness on surface

of jar

10. Label - As prepared appropriately

# 7. PINEAPPLE JAM

#### **INGREDIENTS**

PAWPAW JAM

5 kilos - ripe pineapple peeled,

remove eyes, and cut into cubes or size as required

4 kilos - white sugar





#### **PROCEDURE**

#### **STEPS**

#### **KEY POINTS**

1. Combine sugar and pineapple - In a pot

Cook and keep stirring
 Cook for about two hours
 To avoid burning at the bottom of the pot Ensure mixture is cooked & moderately

thick consistency

4. Pour into clean sterilized jars - Not more than ½ inch of

top of jars

5. Half seal - Turn clockwise once

6. Processed in boiling water
7. Seal completely tightly
8. Leave to cool
At least 20-30 minutes
Last turn clockwise
Before cleaning in cold

water

9. Clean in cold water - To remove stickiness on

surface of jar

10. Label - As prepared appropriately



The same processed is to be applied to all varieties of fruits and prepared by boiling the whole or prices of fruit pulp with sugar to a moderately thick consistency, without retaining the shape of the fruits. Various combinations of different varieties of fruits can be made to produce exciting blends due to their flavor and acidity.

#### 8. BANANA FIGS

#### **INGREDIENTS**

Ripe bananas - ripe banana peeled 1 liter of water

750 ml of white sugar





# STEPS KEY POINTS

1. Select firm ripe bananas - Must be firm ripe ones

2. Peel bananas

3. Drop bananas in boiling syrup - 1 part of water and ¾ white sugar

Cook bananas in boiling syrup Remove from stove or fire For one minute during cooking on the stove
 Let bananas soak overnight in the syrup

6. Drain the bananas from syrup - After soaking overnight

7. Add ¼ part of sugar to syrup

8. Bring the syrup to boil & add bananas

9. Let the syrup and bananas cook - For one minute

REPEAT THE SAME PROCEDURE FOR 3 MORE DAYS 10.

11. Soak the bananas in the thick syrup For one week to plump and be

thoroughly impregnated with syrup

12. Drain bananas and dry In the dehydrator for one day

## 9. BOTTLED PINEAPPLE

#### **INGREDIENTS**

Pineapples ripe pineapple peeled,

remove eyes, and cut into cubes

White sugar



#### **PROCEDURE**

#### **STEPS KEY POINTS**

- 1. Select firm ripe pineapples Must be firm ripe ones
- Peel pineapples 2.
- 3. Drop pineapples in boiling syrup
- Cook pineapples in boiling syrup 4.
- 1 part of water and 34 white sugar

## 10. NONI JUICE

#### **STEPS**

- 1. Get ripe noni fruits
- Clean it up and remove all the dirt 2.
- 3. Fill the plastic container with the cleaned noni fruit
- Close the lid and put the plastic container 4. with noni in the sun
- 5. Let it ferment for 5-7 day in the sun
- It takes 3-4 days and in some cases at least a week for the noni to ferment and all the 6. juice to ooze out and will be collected at the bottom of the container.
- 7. If there is still juice left in the fruits, then put it in a piece of muslin cloth and squeeze the juice out.
- 8. Strain the juice from the container and then pack it in plastic bottles.



#### 11. EGG PLANT - DRIED

#### **STEPS**

- 1. Get good eggplants which are matured and disease free
- 2. Wash and clean them removing all dirt.
- 3. Slice the egg plant in round pieces.
- 4. Put the sliced pieces of egg plant in the dehydrator
- 5. Once it is dried, pack them in plastic bags
- 6. Soak them in water to dehydrate before cooking

#### 12. KAVA POWDER / TEA

#### **STEPS**

- 1. Harvest the kava when it is matured usually after 3-4 yrs of planting.
- 2. Wash the harvested Kava clean from the dirt
- 3. Cut the roots and dry it in the sun
- 4. The stem is also cut into 2-3cm pieces and dried in the sun
- 5. Leave it in the sun until it contains about only 10% moisture
- 6. Once it is dried, pound it into powdered form.
- 7. Tea can also be made using the powdered kava

#### 13. TAMARIND SUGAR COATED

#### **STEPS**

- 1. Peel 5 kg dried tamarind.
- 2. Boil the syrup 5kg sugar in 2 litres of water
- 3. When the syrup is boiling, drop all the tamarind, stir it and than remove from the fire.
- 4. Leave overnight.
- 5. Drain the next day for 3 hours and pack on dehydrator trays.
- 6. After one day drying, remove the tamarind and mix with sugar and re-dry in dehydrator for another day before packing.
- 7. The left over syrup can also be used as drinking juice.

#### 14. DRIED SUGAR COATED PEANUTS

#### **MATERIALS**

3 cups peanuts 2 cups water 1 tablespoon vanilla essence

2 cups sugar

1 tablespoon margarine

#### **STEPS**

- 1. Mix peanuts, sugar and water and stir them.
- 2. Cook until syrup is thick and crystallized.
- 3. Add vanilla essence
- 4. Add margarine when sugar coats the peanuts.
- 5. Lower the fire and continue stirring.



## 15. PAWPAW CANDY BALLS

#### **STEPS**

- 1. Wash, peel and rewash ripe pawpaw
- 2. Four litres of water is needed for 10 kilos of ripe pawpaw
- 3. Cut the pawpaw into small pieces, add 1-2 kilos sugar, stir and boil for one hour and 30 minutes.
- 4. Drain and cool for five hours.
- 5. Line the dehydrator trays with plastic or wax paper
- 6. Arrange the mixture using 2 teaspoon after 8 hours drying, so it does not stick hard on the tray or plastic.
- 7. Re-dry in dehydrator for 16 hours and roll it by hand one by one.
- 8. Re-dry again in the dehydrator for 3 days, and keep moving it once each day for 3 days.
- 9. After 3 days, pack in plastic or cellophane or jars and seal it.



#### **STEPS**

- 1. Remove the skin, eyes and central part
- 2. Ground or chop into paste form
- 3. For very 10 kilos of pineapple, you need 3 kilos of sugar
- 4. The processing and drying time is same as the pawpaw.



**NB**: It is important to note that during the drying time and when you pack the candied fruits, the product is normally hard, but after a period of 6 months to a year, it will gradually start to soften and it can be kept for many years.



#### 17. BOTTLED TOMATO

#### **STEPS**

- 1. Select sound ripe and thick pulped tomatoes and wash thoroughly.
- 2. Blanch in boiling water for 1 minute and dip at once in clod water.
- 3. Peel of he skin
- 4. Remove the seeds through the side of each tomato using the point of a stainless paring knife.



- 5. Strain the juice and seeds.
- 6. Pack tomatoes in jar
- 7. Add ½ teaspoon salt to every jar
- 8. Boil strained juice and pour in packed jars.
- 9. Half seal the jars and sterlize puart jars for 35 minutes and pint jars for 25 minutes in boiling water.
- 10. Seal completely.
- 11. Turn jar upside down
- 12. Cool and label.

Output 2: Improved participants' knowledge of consumer' preferences of food standards: health (diet and diet disorders), hygiene, safety and labeling.

The participants were invited to the market to identify local produce that could be processed and value added.

Selection of produce were made and bought at the market.

During the workshop each of the commodities were prepared for processing bearing in mind the consideration for food standards, hygiene, safety, cleanliness and the process of actual preparation such as peeling, cutting, cooking etc. The labeling for all bottled products was done once the product was made. Special procedures



were undertaken to dip all finished bottled products in boiling water before recapping. This is to sterilize all packed products. Similar process also conducted for selected dried products by putting them through a dehydrator.

All products after they were made were labeled, giving precise information normally required for standard labeling.

Details of products made with labeling are shown in the table below.

#### Commodities used and Products made:

Commodity	Products
1. Banana	Dried Fig
	Dried Organic (6 packs)
2. Ngali Nut	Dried sugar-coated (12 packs)
3. Peanut	Dried sugar-coated (6 packs)
4. Cucumber	Transparent pickles (4 jars)
5. Coconut	Candy balls (500)
6. Mango	Chutney (green) (19 jars)
	Jam (ripe)
	Dried
7. Pawpaw	Jam (31 jars)
	Candy
	Glass candy
8. Chilli	In Oil (18 jars)
	Powder
9. Pawpaw/Mango/Pineapple	In Syrup (22jars)
	Candy balls (100)
10. Cocoa	Cocoa Samoa (2 packs)
11. Tomato	Peeled Tomato (19 jars)
	Dried
12. Kava	Powder
	Tea
13. Pineapple	Organic dried (5 packs)
	In Syrup (10 jars)
	Jam (5 jars)
14.Pawpaw/Soursop/Pineapple/	Juice
Cassava	
15. Noni	Juice
16. Eggplant	Dried (3 packs)
17. Tamarind	Chutney
	Candy
	Paste
	Dry
	Tea
	Juice

Output 3: Improved participants' knowledge of shelf duration under different packs.

A number of lessons were learnt by the participants to improve their knowledge of product shelf life of different products under different packaging. The participants also learnt that a number of products can be made from one commodity and how these can be value added, packed to increase the self life.

#### (i) The list of some of the lessons learnt and knowledge gained is given below.

- Proper use of ingredients and surpluses
- Use readily available local resources
- Proper packaging is essential
- Learnt the various uses of local raw materials to make products
- Learnt new methods of processing and storing products
- Learnt to add value to the local raw materials
- Learnt new cooking skills, processing and packaging methods
- Made friends, exchanged views and learnt about new products



#### (ii) Packing and processing in glass containers

Depending upon the use or kind of product desired, fruits may be packed in juice, water or low syrup or in high syrup or with sugar only. Syrup is made by dissolving sugar in water, its sweetness depending upon the amount of sugar added to the water. Syrups for home use are classified as thin, medium and heavy.

Thin – 3 cups water to 1 cup sugar Medium – 2 cups water to 1 cup sugar Heavy or think – 1 cup water to 1 cup sugar

#### (iii) Steps for hot or cold pack methods of packing

Wash jars well and dry

Select raw materials

Prepare according to recipe. Determine whether cold or hot method will be used Pack product into clean jars not more than ½ inch of top of jar.

Add syrup

Remove air bubbles by running a spatula inside the bottle.

Clean jar rim to remove any particles.

Half seal and process in boiling water at required length of time.

Remove from cooker and seal completely at once.

#### (iv) Cooling, labeling and storage

Allow to cool in a place free from draft Wipe packed jars clean Test leakage by inverting jars. Label and store in a dry, cool place.

# (v) Drying table for fruits

Fruit	Preparations	Average	Dryness test	Use
		drying time		

Banana	Slice ripe bananas 5mm Thick or divide lengthwise Pretreat in citrus juice (optional)	14-16hrs	Leathery	Snacks, Muesli bar, banana cake.
Citrus: Oranges Tangelos Mandarin Lemons	Slice 3mm think. Peel can be dried separately if desired.	14-18hrs	Crisp or Leathery	Snacks, powder, cakes, desserts and chocolates.
Coconut	Drain off liquid and gouge out flesh. Remove dark outer skin and grate flesh or slice 5mm thick	10-14hrs	Crisp or leathery	Cakes, icings, muesli, curries and desserts.
Feijioas	Cut fruit in half, scoop out flesh avoiding grittiness. Slice 5 mm thick	10-14hrs	Leathery	Snacks, desserts and Chocolates
Figs	Slice, halve or quarter ripe Figs Simmer in honey or sugar to make more pliable (optional)	10-14hrs	Leathery or pliable	Stewed, pudding, cakes and snacks

# Output 4: Opportunities and Major problems facing processing industries identified

Some of the opportunities identified as groups that are available to farmers and food processors for value adding are as follows:

- 1. Existing regional projects e.g. FAO Food Processing workshop, Telefood Projects
- 2. Abundance of raw materials
- 3. Availability of skilled resource people
- 4. Regional trade agreements
  - a. Melanesian Spearhead Group (MSG) Agreement
  - b. Pacific Island Countries Trade Agreement (PICTA)
- 5. Utilization of locally available food resources
- 6. Opportunity of utilizing human resource skills development such as Charles
- 7. Create employment to farmers, women and youths
- 8. Increase production of local raw materials
- 9. Land mass availability
- 10. Suitable tropical climate
- 11. Sustainable resources

#### Some of the major problems facing this industry are:

- 1. Lack of appropriate information and dissemination
- 2. Funding problems





- 3. Political problems
  - a. instability
  - b. corruption
- 4. Lack of equipments, facilities, expertise
- 5. Access to credit facilities
- 6. Availability of package materials equipments
- 7. Lack of skills
- 8. Inconsistent supply of raw materials
- 9. Land issues

# Output 5: An action plan to overcome problems and seize opportunities recommended.

#### (a). Some of the ways to overcome these problems are as follows:

1. Better networking and/or better collaboration between the relevant government ministries and other relevant private sectors

- 2. Approach funding agencies/aid donors
- 3. Dissemination of information regarding funding sources
- 4. Involve more women in decision making
- 5. Train more people (especially women)
- 6. Make available credit facilities
- 7. Direct assistance to the farmers
- 8. Provide regular skills training
- 9. Educational awareness programs on sustainable development of customary owned lands
- 10. Up to date weather focus information
- 11. Establish a regional food technology research institution
- 12. Train locals to specialize in various technical fields
- 13. Assistance (funding) from government, and donors through respective government ministries (DAL, Commerce, CEMA)
- 14. Equal gender representations in the agriculture development

#### (b). Advice to Government:



- 1. Promote awareness through training programs on food processing and value adding with emphasis on private sector
- 2. Establish diversification funds to cater for food processors
- The government policy should encourage fruit planting programs to ensure supply of raw materials in the future



- 4. Establish food portfolio to take charge of all matters relating to food processing, such as food standards, quality, codex alimentarius, labeling, etc
- 5. Establish food processing bodies, associations and invite experts to assist such bodies
- 6. Encourage and promote the utilization of local (indigenous) produce for value adding

#### (c). Strategies:

- 1. Value adding and processing needs cash flow to establish a successful business venture
- 2. Need organized system to maintain product quality, continuity of production, packaging, etc.
- Women's organization, NGOs need to advice government on the needs and opportunities of food processing and value adding.

# Workshop Evaluation

After going over the outcome of the workshop, the participants were then asked to evaluate the workshop.

A summary of the workshop evaluation is given. This gave IRETA an idea of the areas that need to be improved upon for future workshops. (Refer to annex 2)

# Official Closing

The General Manager of CEMA, Moses Pelomo welcomed all the dignitaries and participants to the official closing of the workshop. The Director of IRETA, Mohammed Umar expressed his sincere appreciation to Mr. Charles Long Wah, CEMA staff, Agriculture staff and especially the Hon. Minister for opening and closing the workshop. He continued on by thanking CTA for funding

the workshop. The the Department of Livestock, Israel Wore Mr. Charles Long Wah workshop in Solomon opportunity was also of Public Health and Robinson Fugui for his also expressed his



Under Secretary of Agriculture and thanked IRETA and for organizing such Islands. The given to the Director Environment, Mr. remarks where he too appreciation to

IRETA for supporting the Solomon Islands particularly women by opening the workshop to any interested individual who wanted to attend and learn. The Honorable Minister of Agriculture and Livestock in Solomon Islands, Hon. Enele Kwanairara officially closed the workshop and presented the certificates to the participants.

# **Monitoring and evaluation**

# Follow up of workshop by Commodities Export Marketing Authority (CEMA)

The General Manager of CEMA, Mr. Moses Pelomo and the local participants had met on Tuesday, 18 October as another evaluation of the workshop. It was also decided that the group

form an association/cooperative. A was appointed to draft the had their first meeting on October and also the second Thursday, 27th October. Mr. helping this stirring committee the utensils and some of the the workshop to start making the proposed organization.



Steering Committee constitution. They Thursday, 20th meeting on Moses Pelomo is which plans to use ingredients left from products to finance

IRETA will follow up with each of the participants after six months to gauge what products are being followed through following the October 10<sup>th</sup>-14<sup>th</sup>, 2005 workshop from the list given by the participants below:

#### Products to try at home:

- 1. Chilli in oil
- 2. Mango chutney
- 3. Mixed fruit syrups
- 4. Sun dried banana
- 5. Coconut balls
- 6. Jams
- 7. Ngali Nuts (dried)
- 8. Noni juice
- 9. Cocoa Samoa







#### Annex 1

# <u>Summary of the Evaluation of the 2005 Regional workshop on Food</u> <u>Processing and Value Adding in the Pacific, October 10 – 14, 2005, Honiara,</u> <u>Solomon Islands</u>

Total attended workshop 49
Total responses 35
SECTION 1 GENERAL OBSERVATION

#### 1.1 Overall, you were satisfied with the workshop

I agree strongly with this statement				
I agree with this statement	46%			
I disagree with this statement	2%			
I disagree completely with the statement				
No comment				
1.2 Your initial expectations were met				
I agree strongly with this statement	38%			
I agree with this statement				
I disagree with this statement				

#### Elaboration on the above statements

I disagree completely with the statement

1. I find this very interesting and to see new things that I have not seen before. I really enjoyed the workshop as it is very rewarding.

4%

0%

2. I am satisfied with the workshop

No comment

- 3. Because it encourage us to learn more information from C. Long Wah to make use of how to use the local raw material products
- 4. This workshop has met my expectations
- 5. The workshop was excellent and the knowledge achieve will be helpful in the long term

- 6. At the moment, some of the processing we covered are not well satisfied according to the lack of materials at home. Some of the fruits, like pineapple, peanuts, yams, are not available at home
- 7. First of its kind of workshop held there, and I look forward to do something out of what I've learnt
- 8. This is because the workshop was very practical
- 9. My expectations were met because of all your time and effort in arranging this workshop
- 10. No comment
- 11. The instructor has all the knowledge and skills that the participants can learn from
- 12. Doing new things together and make use of fruits of the farms and villages are very useful
- 13. They should also include preparation of chips
- 14. Some expectations of mine has been met
- 15. The workshop have given me opportunities to produce a commodity into many products
- 16. Hands on workshop and skills training is very useful
- 17. It is very rewarding
- 18. Have learnt a great deal from C. Long Wah
- 19. No comment
- 20. No comment
- 21. I really enjoyed this one week workshop because I learned new things, met new friends and some old friend that I never meet them often
- 22. Despite the fact that I was not aware of the workshop, I'm thankful that I was able to learn about it on the street and came to attend and that all my expectations of such workshop were met
- 23. This workshop was basically information dissemination through participation and hands-on. Handouts instead of taking notes would have been an added-value
- 24. Satisfied with the workshop, but one week is not enough for such a workshop. Hopefully we can arrange enough time if another workshop like this is conducted
- 25. I suggest that to improve us women to start us with our small business on food processing, we want the next workshop to be one month
- 26. The aims and the objective of the program/workshop was not made available to the participants
- 27. No comment
- 28. I was asked to replace another participant at the last minute but I have learnt what I need to know about value-added products
- 29. Now I know exactly how to process all the fruit trees and root corps on the recipes taught by Charles
- 30. I expected to have a bit longer period to learn more and have confident in processing
- 31. I am very privilege that I manage to attend this workshop. I learnt a lot
- 32. No comment
- 33. No comment
- 34. No comment
- 35. The expectations to be able to perform simple food processing on a small scale operation is being met. Also, the networking from participants attending is proved invaluable. This is the best workshop ever attended in my entire career

# 1.3 You acquired new knowledge useful for carrying out your job more effectively

I agree strongly with this statement I agree with this statement	40% 38%
I disagree with this statement	0%
I disagree completely with the statement	0.5%
No comment	21.5%

# 1.4 You acquired new contacts which will be useful for exchanging information and acquire new knowledge

I agree strongly with this statement	69%
I agree with this statement	26%
I disagree with this statement	0%
I disagree completely with the statement	0%
No comment	5%

# 1.5 The outcome of the workshop meets the set objectives

I agree strongly with this statement	38%
I agree with this statement	43%
I disagree with this statement	6%
I disagree completely with the statement	3%
No comment	10%

#### Elaboration on the above statements

1	\/		عاما علي بالمناحدة المناحدة	! III . Ia . a	£l 1 .	and the second second section is a first second section of
Ι.	Yes. I nav	e learned new	/ contacts which	i wiii be	: useiul io	exchanging information

<sup>2.</sup> Great! The information above is essential

<sup>3.</sup> Because of this workshop, we are very happy to make use of doing our local products and sell it because of the knowledge that we are learning

<sup>4.</sup> No comment

- 5. The outcome of the workshop meets the requirements of the participants involved. An excellent understanding on income generating activities on processing and value adding
- 6. No comment
- 7. Now I can do what I've been dreaming of (doing things to earn money myself)
- 8. The three points above was of a great help to me during this short period of time
- 9. Because it is a food processing workshop
- 10. The outcome of the workshop meets the set objectives. The only thing is time is little bit short
- 11. No comment
- 12. Experiences shared by the other overseas participants are well appreciated
- 13. Learning new things and new recipes out of the fruit trees is most important and have the new knowledge
- 14. Yes, it satisfied all objectives of the workshop
- 15. Yes the workshop meets the set objectives, as we have never attend a food processing workshop before and I think this is the first kind of this to be held here in the Solomon Is.
- 16. For myself, I acquired new knowledge for carry out my job
- 17. New women/resource persons interact and share information
- 18. No comment
- 19. No comment
- 20. No comment
- 21. No comment
- 22. I really agree to the above statements as I have learned a lot and met new people whom I will contact in my future planning.
- 23. The usefulness of the workshop, will be shown practically when I actually go back and apply the new skills, processing
- 24. No hand-outs to take home as references and no economic aspect (bask cash flow) of the food processing of each item
- 25. New useful knowledge acquired. Sure is my first time to attend such workshop
- 26. No comment
- 27. No objectives of the workshop made available to evaluate the meeting objectives
- 28. We need more time for the workshop
- 29. No comment
- 30. All the local crops can process locally with locally made syrups. Makes it easier and cost effective
- 31. The outcome of the workshop has set out my objectives. I have been longing for such workshop before but never eventuate by our government
- 32. Satisfactory
- 33. No comment
- 34. No comment
- 35. The knowledge acquired are new and would be useful in teaching/training the youths and women

# SECTION 2 PROGRAMME

During the workshop, the following topics were presented. The content and quality of the presentations met your expectations:

# 2.1-2.6

Presentations	I strongly agree with the statement (%)	I agree with this statement (%)	I disagree with the statement (%)	I disagree completely with the statement (%)	No comment (%)
2.1 Opportunities for food processing and value adding of pacific produce	52	38	3	0	7
2.2 Practical sessions on food processing and value adding	55	38	3	3	1
2.3 The interaction between participants and facilitator and resource person were rewarding	55	29	0	3	13
2.4 The interaction between participants were rewarding	46	32	3	3	16
2.5 The topics covered were relevant to the workshop objectives	38	43	3	3	13
2.6 The balance between different topics was satisfactory	26	49	9	6	10

## SECTION 3 METHODOLOGY

# 3.1 Presentation methods were appropriate

I agree strongly with this statement	
I agree with this statement	
I disagree with this statement	
I disagree completely with the statement	
No comment	
3.2 Presentations were clear	
I agree strongly with this statement	40%
I agree with this statement	

I disa	I disagree with this statement	
I disagree completely with the statement		3%
No co	omment	11%
3.3	The pace during the workshop was adequate	
l agre	ee strongly with this statement	20%
I agree with this statement		46%
I disagree with this statement		18%
I disagree completely with the statement		6%
No co	omment	10%
3.4	Duration was adequate	
l agre	ee strongly with this statement	15%
I agre	ee with this statement	29%
I disa	agree with this statement	20%
I disa	agree completely with the statement	12%
No co	omment	24%
3.5	Intensity was satisfactory	
I agre	ee strongly with this statement	18%
l agre	ee with this statement	46%
I disa	agree with this statement	15%
I disagree completely with the statement		9%
No comment		12%

# SECTION 4 LOGISTICS

# 4.1 Background information was timely and sufficient

l agree	strongly with this statement	26%
l agree	with this statement	40%
I disagree with this statement		12%
I disagree completely with the statement		6%
No con	nment	16%
4.2	The organization of your trip was satisfactory	
l agree	strongly with this statement	26%
l agree	with this statement	26%
I disagree with this statement		0%
I disagree completely with the statement 1		12%
No con	nment	36%
4.3	Accommodation was satisfactory	
l agree	strongly with this statement	12%
l agree	with this statement	26%
l disagı	ree with this statement	12%
l disagı	ree completely with the statement	6%
No con	nment	44%
4.4	In general, the working conditions were acceptable	
l agree	strongly with this statement	20%
l agree	with this statement	38%
I disagree with this statement		9%

I disagree completely with the statement	6%
No comment	27%
4.5 Workshop facilities were adequate (equipment, materials)	
I agree strongly with this statement	18%
I agree with this statement	38%
I disagree with this statement	26%
I disagree completely with the statement	12%
No comment	6%
	070
4.6 Catering conditions were satisfactory	070
<ul><li>4.6 Catering conditions were satisfactory</li><li>I agree strongly with this statement</li></ul>	20%
Ç	
I agree strongly with this statement	20%
I agree strongly with this statement  I agree with this statement	20% 46%

# 4.7 The following organization aspects could be improved upon for the future

1. We should have more training twice a year to help us promote more
2. No comment
3. Because of the learning skills that they expect to achieve
4. No comment
5. Facilities in host countries to be reviewed prior to workshop
6. We have lot of time but few topics covered. It is possible if the program should not in particular
time
7. Really needs great improvement next time/future
8. I think we have worked with all the materials needed during our sessions
9. No comment
10. We must do demonstration in groups
11. No comment
12 Course venue – should use a place where there is enough kitchen space and cooking facilities

- 13. No comment
- 14. I would like to see what a regional workshop on floriculture be held in Solomon Is.
- 15. Costing and prices of processed products each participant should know hot to make costing so that we know we are making profit or just losing
- 16. No comment
- 17. Notify participants/candidates in advance
- 18. No comment
- 19. Workshop facilities (equipment, materials) need to be improved.
- 20. Time too short
- 21. Workshop information must be timely
- 22. Yes, I recommend that we should have a better place to cook and class in the future workshop and more time for each subject
- 23. Proper cooking facilities, equipment, materials, suitable environment and working conditions
- 24. Bigger venue, accommodation should be single rooms
- 25. No comment
- 26. No comment
- 27. Prepare all raw materials for the workshop
- 28. No comment
- 29. Contact right person with DAL to do all the organization before the workshop begins
- 30. The host country should prepare all needed fruits and facilities in time before hand. Need bigger venue or space to work on
- 31. Yes, this should be much more improved in future to avoid complains
- 32. Once a year in each country in the pacific
- 33. No comment
- 34. No comment
- 35. I was completely satisfied with organizational aspects of the workshop, except the accommodation (water was a problem)

#### SECTION 5 FOLLOW-UP ACTIONS

# What follow-up action would you suggest?

- 1. No comment
- 2. A follow up workshop to review progress in this one
- 3. Same team to meet again presenting what had been done in your country regarding what had been learnt during the workshop
- 4. For future workshops, please have farmers participate
- 5. Have different workshops on different views
- 6. For participant to report back their research on agroforestry to IRETA
- 7. Trainings and workshops
- 8. More networking
- 9. No comment

- 10. Follow up workshop
- 11. Setting up a network for the Pacific Island Countries, focal point is IRETA, proposed paper should be done first for it to go further
- 12. Pursue recommendations at national level
- 13. Community of practice should be up and running for the dissemination of useful information
- 14. No comment
- 15. None
- 16. Network calendar
- 17. PR Campaign for PIIFS-Community of practice

#### SECTION 6 GENERAL COMMENTS AND OBSERVATIONS

- 1. My general comment is that I really enjoyed the workshop and I hope will be having in the future
- 2. We should make a second workshop in order to equip more in skills. I think one week is not enough anyway
- 3. I was very happy to attend the workshop because it help us to observe many different types of variety of product
- 4. This workshop was very good because it has opened new avenue for product to be valued to a new standard for local market
- 5. A valuable experience and important lesson to be shared with everyone
- 6. Need more space (accommodation). Equipments are not enough for the participants
- 7. After all, every program really helpful, enjoyable and goes well, from my 3 days observations
- 8. Future training
- 9. No comment
- 10. Above all the workshop was really interesting and thank you for arranging this workshop. I am looking forward for some workshops in the future
- 11. I love the presentation made by Charles Long Wah and Director IRETA because of very simple technology and presentation to us local participants
- 12. The organizers should control the enrollment of participants, since the venue is small. Too many participants enrolled did not allow full participation in cooking demonstrations
- 13. No comment
- 14. I want to thank USP/IRETA, Mohammed Umar and Mr. Charles for the opportunity to this workshop
- 15. If possible include a session on costing of the products so that participants can know what price they can put on the products after they have processed them that is business part of it
- 16. It has been a important course which I learn new skills and brought me into another step
- 17. A workshop which resource personnel's and participants interacts and learn a lot from women. There is no barrier gap
- 18. Would like longer time and especially on packaging
- 19. Above all, the whole workshop was a success
- 20. We are moving forward in the right direction
- 21. Overall the program was satisfactory

- 22. I am very thankful for being one of your participant to this workshop, because I am new to the area and I have learned a lot and will go back and try to help others by teaching them to do food processing
- 23. On the whole the workshop came at the right time at the right place to the right people. A big thank you to IRETA and CTA.
- 24. To conduct more of this workshop in other countries but more organized by host and IRETA organizers
- 25. No comment
- 26. I am very happy to come and attend this workshop. It teach me and will help me to improve us women to start our small business
- 27. Thank you so much for the wonderful workshop. I have learned many useful ways to prepare, preserve, packing, labeling, etc during this workshop
- 28. Very useful and worth workshop for women of the Solomon Islands
- 29. Although the workshop (DAL) organizers did not do a good job in making necessary arrangements, I think the IRETA staff and Charles Long Wah did an excellent job. Well done. Thank you for accepting more local participants then required
- 30. The workshop considerably excellent that the practical sessions were all clear and understandable. All staffs and participant were all happy and keen to learn
- 31. I thank the good organization like IRETA/CTA to bring this workshop to Solomon Islands so that some of us would participate and learn this value added food program for developing our country
- 32. Thank you so much for our main resource person and the main player part of this program
- 33. No comment
- 34. No comment
- 35. I wish to thank sincerely to CTA and IRETA for making this opportunity available for me and also the trainer. The trainer is high recommended and is willing to share his knowledge

#### CONCLUSION

The participants were generally happy with the workshop. Most of them either agreed strongly or agreed with the statements. However, for future improvements, please refer to section 5 (Follow-up actions).

#### Annex 2

# CTA / IRETA Regional Workshop on Food Processing and Value Adding in the Pacific

October 10 – 14, 2005 C.E.M.A. Conference Facilities Honiara SOLOMON ISLANDS

## **FINAL PROGRAM**

## Day 1: Monday 10 October

8:30am Registration

Joyce Tulua

9:00-10:00 Welcome and Brief overview of

workshop

Mohammed Umar, Director of IRETA,

Official Opening

Hon. Enele Kwanairara

Minister of Agriculture and Livestock

Solomon Islands

Brief Introductions of Participants and

their expectations

Joyce Tulua

Group Photo Ramona Sulifoa

10:00-10:30 Morning Tea

10:30–11:00 Introduction to Working Groups

Joyce Tulua

11:00-12:00pm Opportunities for food processing and

value adding of Pacific produce (Group

Exercise 1)

Mohammed Umar, Director IRETA

12:00-1:30 Lunch

1:30-4:30 Visit to local produce market J. Tulua Local tropical fruits - Fresh Produce market 5:00 End of Day 1 Day 2: Tuesday 11 October Group Exercise 1 summary 8:00-8:30am M. Ümar Demonstration and discussion on 8:30-10:00 - Value adding preserved pawpaw, tamarind, mango, - Preparation of cucumber pickles C. Long Wah 10:00-10:30 Morning Tea Continue with value-adding 10:30-12:00 • Packaging, sterilization, mixed dried fruit preservation C. Long Wah 12:00-1:30 Lunch Demonstration and discussion on: 1:30-3:00 Preparation and cooking of pawpaw jam and chutney in sterilized jars Coconut candies C. Long Wah 3:00-3:30 Afternoon Tea 3:30-5:00 Demonstration and discussions continue End of Day 2 Day 3: Wednesday 12 October Group Exercise 2 8:00-8:30 M. Umar

8:30-10:00	<ul><li>Demonstration and discussion on:</li><li>a. Cooking of chili in oil for pickles</li><li>b. Methods of preparing cucumber pickles</li><li>C. Long Wah</li></ul>
10:00-10:30	Morning Tea
10:30-12:00pm	Demonstration and discussion on: c. Bottling peeled tomatoes d. Fruit in syrup e. Dehydrating vegetables, fruits C. Long Wah
12:00-1:30	Lunch
1:30-3:00	Making of coloured coconut candies
	Group Exercise 3 – 4 <i>M. Umar</i>
3:00-3:30	Demonstration on Noni C. Yoshida & A. Rauru
3:30-5:00	Demonstration and discussion continue
5:00	Group discussion
	End of Day 3
Day 4: Thursday 13 October	
8:00-8:30	Group Exercise 5 <i>M. Umar</i>
8:30-10:00	Demonstration and discussion on: sugar-coating of peanuts and terminalia nuts  C. Long Wah
10:00-10:30	Morning Tea
10:30-12:30	Value added - Ngali (canarium nuts) Shelf life – duration on different packaging C. Long Wah

12:00-1:30 Lunch 1:30-4:30pm Demonstration and discussion continue End of Day 4 Day 5: Friday 14 October 8:00-8:30am Summaries of Exercises 1 – 5 M. Umar Special Demonstration Session for 50 8:30-12:00pm local nut growers and processors on: Methods of preservation and value adding of canarian nuts (sugar-coated) Charles Long Wah 12:00-1:00 Lunch 1:00-1:30 Summary of workshop, conclusions and recommendations M. Umar / C. Long Wah 1:30-2:00 Evaluation Joyce Tulua Official Closing by Minister of Agriculture 2:00-2:30 and Livestock Hon. Enele Kwanairara 2:30-3:00 Afternoon tea 3:00 Depart

## Regional Workshop on Food Processing and Value Adding October 10-14, 2005 SOLOMON ISLANDS

#### LIST OF PARTICIPANTS / RESOURCE PERSONS

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