

<b>Period (date) of Activity:</b>	20/02 – 04/03/18	<b>Key Stakeholder:</b>	Wards Reps, Youth and Women grps in Community
<b>Venue:</b>	Abemama Island	<b>Name of person writing report:</b>	Tirae Tabea Taubuki – SFA
<b>Reviewed and checked by:</b>	Taati Eria – SFO (Fisheries Division)	<b>Endorsed for Release by:</b>	Karibanang. Aram – PFO (FD)

### A. Nature of Activity Undertaken

- To formally liaise with clerk for courtesy call and arrange for a courtesy meeting with the Island clerk and the Council Mayor for briefing of program and resource planning.
- Conduct post-harvest and seafood processing trainings targeting community groups to enhance dietary consumption and nutritional value of fish.
- To promote means of value adding techniques to diversity income generation opportunities.
- To promote diversification of opportunities for local communities to reduce fishing pressure from the coastal areas through promotion of seafood value added techniques.
- To ensure the sustainability of subsistence fisheries in supporting community livelihood, income generation and efforts to enhance food security in the face of climate change.

### B. OBJECTIVES

Enhancing food security in the face of climate change is the ultimate goal of the LDCF project, hence working with line Ministries to ensure that programs are implemented to address issues that could build an adaptive capacity of our local communities. Through this activity it also aims to **diversify fishing pressure from the coastal areas and to ensure the sustainability of subsistence fisheries in supporting community livelihood and enhance food security**, such as through the promotion of initiatives example value adding techniques. Furthermore, such training program will look at **empowering local communities through hands-on training programs to promote means of value adding techniques to diversify income generation opportunities**.

In achieving the aim of this program, it is quite important to achieve through the listed key objectives:

1. To empower local communities and promote self-reliance at the community level to address food security, sustainable livelihoods, employment opportunities and income generation initiatives through hands-on post -harvest training programs.

2. To build the capacity of local communities through hands-on demonstration of post-harvest techniques to diversity income generation opportunities.
3. To learn and understand the importance of observing good hygienic practices to ensure safe and quality fish products.
4. To implement an effective and practical framework to support outer-island fisheries development initiatives to enhance food security opportunities in the face of climate change.
5. To support initiatives in promoting marketing of value-added products at the community level.

The delivery of the training program aligns with Outcome 2: Implementation of community adaptation measures to increase food security under the LDCF project with the expected Output 2.4 through promotion of seafood value added techniques through hands-on demonstration programs.

The training in Abemama also provide an adaptive strategy whereas the use of canning fish in bottle instead of using tins also promoted, nevertheless the use of canning materials provided for the Island Council as in-kind support from KOICA also utilized at the training. Other products also promoted in the making including smoke fish, tuna jerky pickled seafood such as clam, octopus, ark-shell and sea worm as alternative food sources

for food security and to sustain protein source from preservation methods such as lifelong products sourced from our marine resources.

### **C. RESULTS ACHIEVED**

There are two parts of the activity which include; the theory part which involved delivery of presentation on post-harvest: fish preservation and fish processing and cooking demonstration for all participants. The additional value with village representatives, youth, women in the community and for those who are interested in the training. I proposed to the clerk if we could use the council ice-plant fish center for our training venue. Because it is comfortable and well equipped where we can used all the materials available in the fish center such as solar power, ice-cube for icing fish and smoke box and fish drier.

On the first day of the first week we invited 5 participants from Kabangaki to Reina, this covered 7 wards. My activity was integrated with the MCIC team where we share all the participants from Kabangaki to Reina. This idea came up from the MCIC team that we will deliver different messages so that our participants will not get bored during the theory and complete the purpose of our mission.

As a joint program, in the morning from 9 am to 12.30 MCIC team deliver the presentations followed with fisheries sessions in the afternoon. The program promotes a collaboration between the 2 partners, Fisheries and MCIC in achieving the objectives of the activities implemented. The afternoon session, the theory part on fish preservation and fish processing followed with the discussion on the topic. At the end of the presentation, I provide list of seafood cooking recipes to be covered in the demonstration work and seek further inputs on how we go about for the next course of our training program in the following practical days. For the first group of trainees, they choose to start a demonstration and hands-on cooking practical on the smoke fish and tuna jerky while the rest of recipes are carried out on the last day of the practical.

#### List of recipes covered in the hands-on training demonstration

1. Smoke fish
2. Tuna Turkey
3. Pickle clam and sea worm
4. Ark shell in bottle
5. Fish in tomato sauce

On the second day we had a practical on smoke fish and tuna turkey. On the third day we continue our activities on pickle clam, ark-shell and fish in tomato sauce where we used empty bottles to store all our marine products for long life span. Firstly, a demonstration to all the participants on the steps of how to make and prepare smoke fish. Step by step preparation of the fish followed by the making on how to marinate tuna jerky and fish smoke, drying and smoking of the fish. Demonstration using other recipes for making pickled clams and seaworm and bottled seafood with the application of various flavour such as tomato sauce and brine. The process marine products placed inside empty bottles for participants to take home. The trainees separated in their wards during the demonstration activity and everyone allowed to participate in the making of these cooking recipes. We used pressure pot to cook all of the ingredients to prepare the marine products. For the first part of the training program, there were 41 total participants attending the training from day 1 to day 3.

There were 6 remaining wards from Baretoa to Tokamauea. On Day 4 the training focuses on the remaining wards whereas the same activities are conducted similar to the first group from Kabangaki to Reina wards. First thing I did the theory on fish processing and fish preservation. On day 5, demonstration on smoke fish cannot be carried out due to unavailable of tuna however the recipe on marinating the fish also shared to apply to bonefish but the preferred species is tuna since we could not buy tuna fish at that time. I gave them the recipe to use for marinating fish smoke. Then on the last Day 6 we did canning in empty bottles such as clam and ark-shell. There were about 29 total participants attending the training from day 4 to day 6.

The team from MCIC and I did visit the islet called Abatiku on the next day to do the same training as we did on the main land. We spent 2 days on the islet as we include the evening to deliver our

theory and during the day we did our activities. I did the practical and demonstrate how to use clam and sea-worm to preserve all this marine product inside the empty bottle. I did the demonstration by cooking all this product using the pot and cooked in the open fire. I do not have time to demonstrate smoke fish because there is no smoke box to use for our training. There were 48 participants from Abatiku were attend the training on post-harvest.

Saturday and Sunday most of the participants prefer to rest on this days so I have no activities carried out on those days.

The objective is achieved and very interesting from participants as they really admire the new techniques on using empty bottles to preserve seafood and marine products as means to address alternative protein source and for food security.

#### D. BENEFICIARY

##### Course of Training program

<b>Post-harvest</b> processing and value adding on seafood training on Abemama island (20 <sup>th</sup> February – 04 <sup>th</sup> March,2018.		
<b>Day 1 – 3</b>	7 Wards covered	- Kabangaki to Reina
<b>Day 4 – 6</b>	6 wards covered	- Bareta to Tokamauea
<b>Day 7- 8</b>	Abatiku islet	- Abatiku islet

**Table1:** Record on the days covered for the training with target wards involved.

Approximate number of beneficiaries reached by Activity (% breakdown by gender and age).

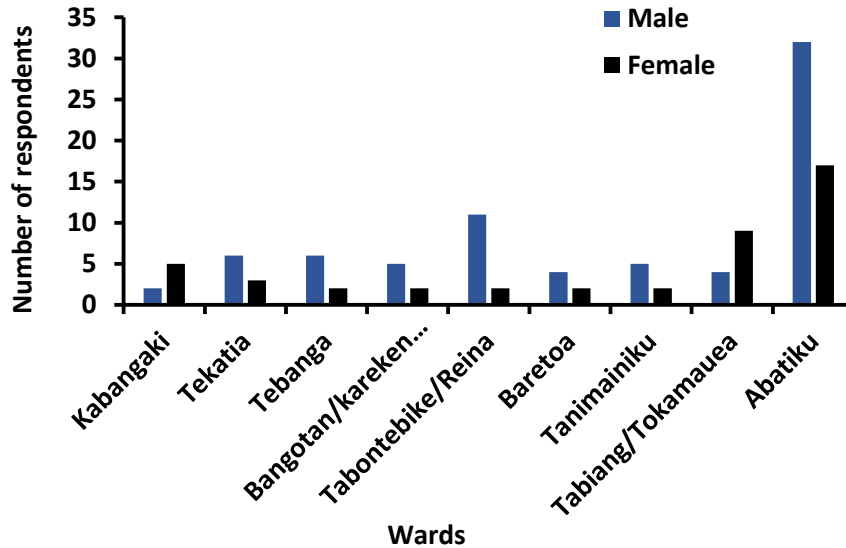
Island Council Ward	Total No. of Participants	Gender		Percent %		Age Category	
		Male	Female	% Male	% Female	% 18 -39	% 40>
Kabangaki - Reina	41	26	15	22	13	24	10
Baretoa - Tokamauea	29	17	12	14	10	14	10
Abatiku	49	32	17	27	14	25	16
<b>Total</b>	119	75	44	63	37	64	36

**Table 2.** Approximate number of beneficiaries reached for this training program with breakdown of number of partipants by gender and age group for the wards covered.

Government officials and NGOs were not participated in the training activity as most of them having other commitment and did not have time to attend the training. Only non-workers, farmers and fisherman participated in the training.

The program targeted community members on Abemama with the understanding that any feedback and lessons learnt will further guide any future training programs. However, the coverage of the training not able to reach the representative of the population in Abemama whist representatives

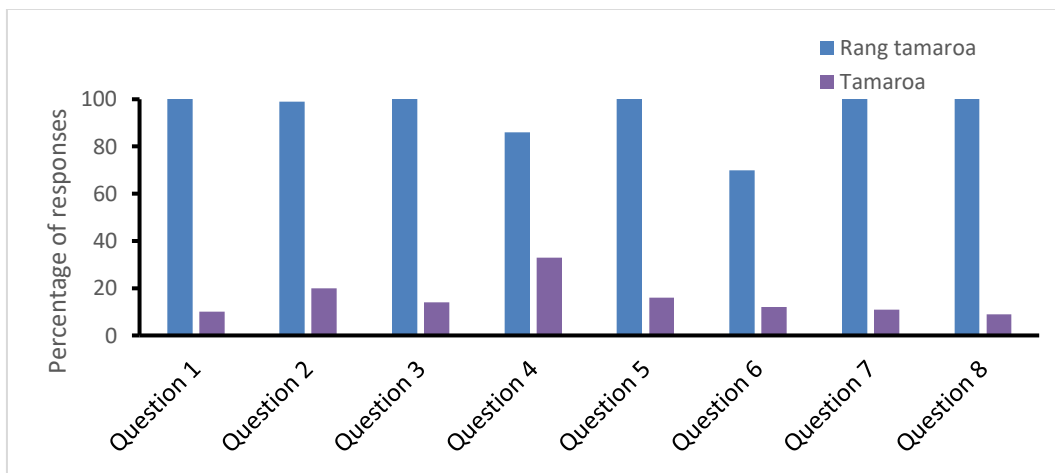
from community groups could share the skills acquired upon return to their communities as indicated in Figure 1.



*Figure 1.* Record on the number of participants attending the training by gender and ward.

**Evaluation of the training program**

The evaluation program able to provide feedback and views from participants for any future inputs towards the training module. Questionnaires are printed and carried along during the trip to Abemama. Participants asked to fill the questionnaires (Appendix 1) and returned with further analysis on the outcome of the feedback and views collected shown in the graph below in Fig 2.



*Figure 2.* The graph shows a great positive from the views from participants on the training.

### E. BUDGET USED

<b>Costing estimates for Post-harvest training in Abemama</b>		
<b>Descriptions</b>	<b>Cost</b>	<b>Total Cost</b>
Per diem for 1 x 13	\$70.00	\$910.00
motorbike hire for 10 days	\$20.00	\$200.00
fuel for 10 days *2L	\$1.30	\$39.00
boat hire for participants Abatiku	\$200.00	\$200.00
Airport tax	\$20.00	\$20.00
Ingredients	\$50.00	\$50.00
Gas stove fuel @\$2.20 for 4cans per day x 12 wards	\$2.20	\$105.60
Fish @ 10.00 for 10 training days	\$10.00	\$100.00
Transport for workshop (\$2.50 x 12 days x 20 participants)	\$30.00	\$600.00
Transport hotel/airport	\$50.00	\$50.00
<b>Grand total</b>		<b>\$1455.60</b>

*Table 3. Breakdown of the costing of the activity in Abemama.*

(Please refer to the account clerk for the actual amount been used in Abemama during the all training.)

### F. LESSONS LEARNED/SELF EVALUATION

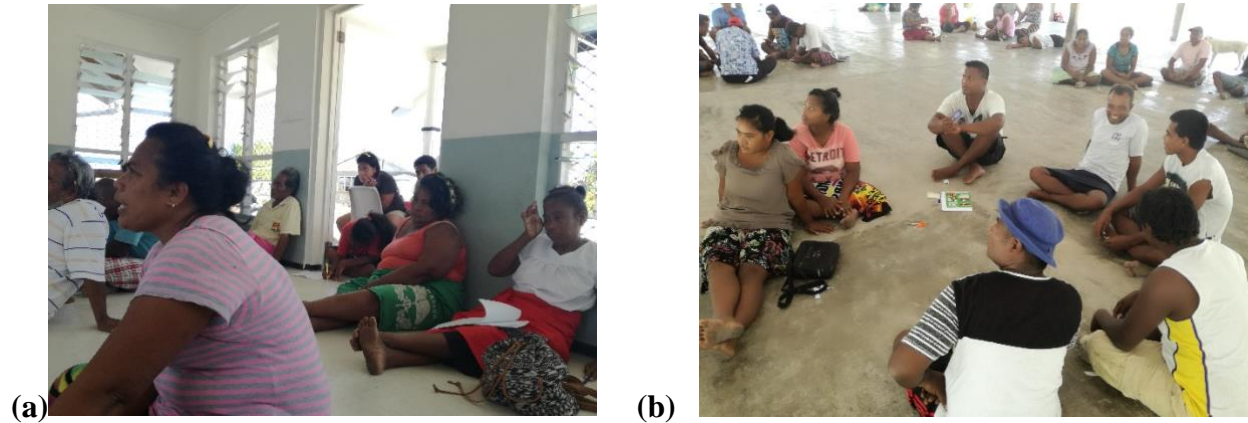
At the outset, the training is very beneficial for the communities however there are also some challenges and lessons learnt as identified and listed below:

1. Do away with payment of sitting allowances – this should never be encouraged and hope the project could develop some incentives to sustain the momentum of participation from the communities and encourage small projects on post harvest for private involvement.
2. Duration of the hands-on training – as a feedback from participants few requests for extension of the days covered for the training. If possible to plan a training per ward as lessons learnt from the visit to Abatiku and most of the village members attend and willing to contribute everything for our cooking practical such as fish, clam and etc.

3. Lack of government officers participation – to promote the participation of Island Project officer and Island Community worker due to information sharing on future island projects.
4. Reflection of the demonstration training - participants have shown great keenness and interest to learn new techniques and ideas on how to preserve seafood and stored inside the bottles.

**G. Contribution to Media:**

**Theory Part: Presentation on fish handling, post harvest techniques delivered to the trainees.**



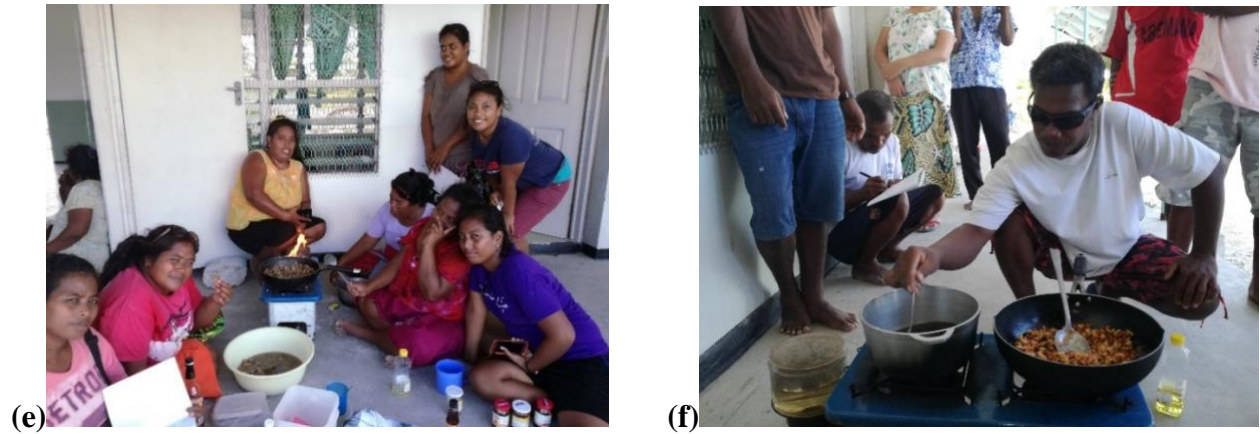
**Figure 3.** Participants at the training on post-harvest techniques in Abemama (a) and (b).

**Preparation, adding ingredient and marinated raw materials.**

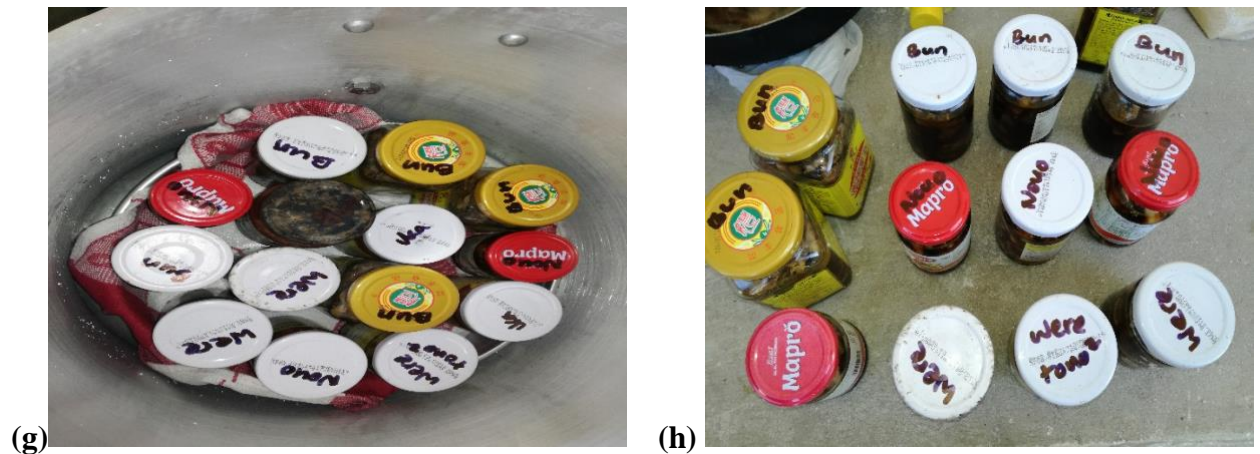


**Figure 4.** Participants involved in the hands-on preparation of ingredients for marinating of the raw materials at the training in Abemama (c) and (d).

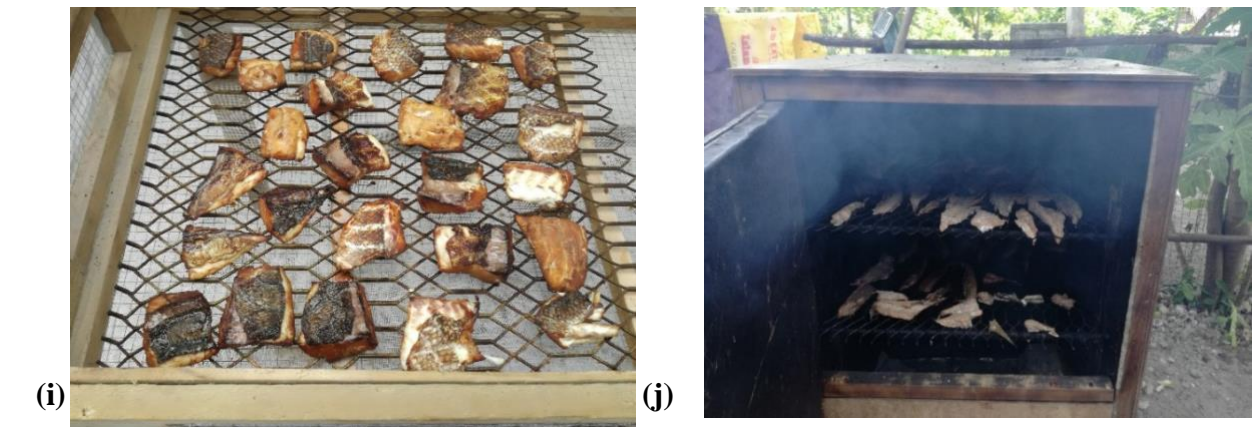
**Cooking of raw materials and making of the seafood products.**



**Figure 5.** Participants involved in the hands-on working process of the seafood products (e) and (f).



**Figure 6.** Bottled clams, ark shell and strombus ready to cook(g) and ready in bottles (h).





***Figure 7. Drying stage of tuna slices in solar drier (i) and the final stage - smoking (j).***