Pohnpei Cooperative Research Extension Services

During the 3rd quarter of 2016, the following activities were carried out involving 6 AFT interns including: visited and assisted seventeen (17) black pepper farmers providing technical supports, production demonstrations, post-harvesting handling and processing; provided and assisted livestock farmers with sick animal treatments, vaccination, castration and technical advise on best husbandry management; conducted community trainings on gardening and semi-commercial vegetable farming in Nanmadap, Pohnlangas Elementary School, Nanpohnmal, and Pohras; and participated with the FSM wide Integrated Agriculture Census trainings of enumerators and supervisors.

Climate Change awareness was carried out at the beginning of the quarter in Madolenihmw Elementary School with 155 students and 4 teachers at the school. The aim of the awareness was to enable them to learn and understand what climate change is, its affect on agriculture, and adaptation strategies. The agriculture climate change adaptations include cultivating resistant crops, inter cropping to suppress both disease and pest, mulching methods, composting, and green manures. The number of visitors to the hatchery were increased to 13. All were able to view the work happening at Nett Point. There is an intern student from the Step-Up program is doing his research program with us at Nett Point hatchery. He is working on his abstract for his presentation on sea cucumber development which will be presented during the Step-Up program visit to be held in Washington DC. Four internship students form COM-FSM are still continuing their hands-on training at the hatchery. They are acquiring more knowledge and skills through participation the hatchery activities.

AES Pohnpei- ACCOMPLISHMENTS

Vermiculture (earthworm) Conference, North Carolina State University, USA

• Attended a 2-day vermiculture conference in the U.S. mainland. Conference has provided useful ideas and networks (a) to be shared via upcoming World Food Day, and b) to be implemented through Hatch-funded soils research project, and c) to be promoted via planned local workshop.

Farm Visits

- Took COM-FSM intern/STEP-UP students with me on all farm visits. I contributed especially regarding soil-aspects of farms:
 - Visited cassava research plots in Kolonia with Dr. Peter Maddison (visiting Entomologist from New Zealand) and STEP-UP student
 - O Visited coffee farm at Palikir with Dr. Maddisson, intern students and others
 - o Visited coffee farm at Nanpohnmal with SPC officials and students

Attended Dr. Peter Maddison's seminar

• Took intern students with me to attend Dr. Maddison's seminar on his findings on Agricultural Pests of Pohnpei

Supervised COM-FSM students

- Provided classroom and field instructions for COM-FSM intern students
- Carried out collaborative research with COM-FSM STEP-UP Program student
 - Designed research project for student

- o Provided training for STEP-UP student in various aspects of research
- Student collected data

Joined Ad-hoc Committee to find a replacement for Extension Agent, the late Mr. Michael Iehsi

- Had an introductory meeting
- Worked on questions
- Did the interviews
- Agreed on a set of recommendations for COM-FSM President, Dr. Daisy

Planning of soil activities for 4-year project

• As part of a 10-member team from various regions of the world, under UN FAO coordination, I contributed in planning soil activities for coming four years – for submission to donors for funding. Aim of the initiative is to encourage investment, technical cooperation, appropriate policy development, education, awareness, and extension activities relating to sustainable soil management.

Preparation of Agroforestry Resource

Under WSARE sponsorship, working as a member of an 8-member team to prepare an agroforestry
design manual to provide cooperative extension agents, NRCS field staff, landscape professionals,
agricultural consultants, and producers with current and detailed training in design of agroforestry
systems in the US-affiliated Pacific Islands.

Meetings to Revise CRE Reporting Protocol /IEMP

Held two meetings in June with Jimmy Hicks and Jackson Phillips to discuss revision or refinement
of numbering and other improvements for IEMP for CRE Department. After first meeting I worked
on a revised numbering system that was part of the discussion in the second meeting.

Revision of last year's proposal

• Started revising rejected submission ("Demonstration of blue-green algae as a sustainable source of Nitrogen in the tropical island setting") for resubmission this year. This proposal was proposed by Engly Ioanis, Jim Currie, Jessica Davies (Colorado State Uni) and myself. It is a very appropriate project but we did not allow enough time last year to properly prepare the proposal.

Chuuk Cooperative Research & Extension Services

AES-Working with land owners two documents to be prepared for the use of their lot for free. MOU and notarized documents signed by the family representatives indicating consent for the use of that lot for the AES site.

Performed oral presentation of a research paper "FSM Giant Swamp Taro Salinity Tolerance Evaluation" at the Sofitel Hotel, Manila Philippines on June 1-3 during International conference on Agriculture and Forestry.

Family, Youths and Communities

Training 17 individuals in Culinary Art; cooking different recipes, Sewing; Mumu, both long and short pants, and shirts, and in Handicrafts; both recyclable and local handicrafts. June 1st to the 30th

Monitoring and evaluation of participants of our community outreaches in Sewing, Culinary Art and Handicrafts for the past two years (2014 & 2015) reveals that 94 had started their small business selling foods, handicrafts and clothing while 3 are working in restaurants.

A budget for our community outreach program in the amount of \$64,136 for FY 2017 has been approved by both our legislature and Governor

Childhood Obesity

Informed the audience the importance of fruits and vegetables in our diets. Did cooking demonstration on making extracted coconut meat into coconut biscuits and also making kangkong chips (June 9, 28 participants).

Did same presentation but different audience on June 22, 12 participants

Did demonstration making Mackerel patties mixed with vegetables (June 23, 7 participants). and is awaiting the approval of JEMCO. If JEMCO does not approve it then we will lose the amount.

Food Safety

Sharing the importance of food safety in cooking and also in handwashing to parents and children (June 9^{th} and 22^{nd} 25 participants)

Climate Change Planned Program

Motivated 11 school children ages 6-12 to help in gardening and avoid burning biodegradables like cut grasses that could be composted for good soil conditioner (June 22).

Global Food Security and Hunger Planned Program

Promoted to 11 children aged 6-12 the nutrients and health benefits and encouraged them to establish vegetable gardening at their homes (June 22).

Meeting with 6 Salvation Army church members involved in promotion of gardening and health for review and planning of innovative strategies with the schools and communities (June 30).

Yap Cooperative Research and Extension Services.

- 1. Attended the Islands of the World XIV 2016 International Small Islands Studies Association Conference in Lesvos Island, Greece and presented paper entitled "Agroforestry as an adaptation strategy for environmental migrants in Yap Island.'
- 2. Submitted a paper on 'Climate-friendly adaptation strategies for the displaced atoll population in Yap' for presentation during the upcoming symposium on 'Climate change adaptation in the Pacific Region' in late July. This paper will be published in the upcoming book on 'Climate Change Adaptation in Pacific Countries: Fostering Resilience and Upkeeping Life Quality' by Springer, Germany. PACAM will conduct a mid-term review of projects in conjunction with this symposium.
- 3. A concept paper on 'Climate-resilient food systems as an adaptation strategy for island communities in Yap' has been submitted for financial support under the German Federal Ministry of Education and Research.
- 4. An abstract on 'Climate-smart urban agriculture systems to combat malnutrition and food insecurity in small islands' has been accepted for poster presentation during the upcoming 7th National Small Farms Conference in Virginia Beach.
- 5. Currently working on an extension/outreach proposal for submission 2016 OASDVFR Program (USDA-OAO).
- 6. PACAM Project is slowly but steadily progressing. Communities have begun gardening activities. More than 10 Bob bags have been installed in the community households for rainwater harvesting. Communities were briefed about the importance of bob bags and their maintenance.
- 7. As part of PACAM Climate Fund project, a workshop on 'Soil Organic Matter' has been conducted for participants from Makiy and Ruu. The workshop was followed by a hands-on activity on the importance of soil organic matter to enhance the fertility of red soils.

8. Meetings attended:

- i. Yap Development Network partners meeting
- ii. Water For Life Project core team meeting
- iii. Weekly Skype meetings with PACAM Regional Fund Manager
- iv. Bimonthly Project Directors' teleconference with USDA-OAO
- v. Briefing about betel leaf disease at Yap State Legislature
- vi. 7th National Small Farms Conference Program Planning Committee members meeting Teleconference.

Kosrae Cooperative Research and Extension Services

Gemplasm of pineapple, black pepper, and cassava being collected, planted and maintained in gthe greenhouse to establish cultures and multiplication.

Media formulation and preparation are under progress to establish in viitro cultures and multiplication of collected germplasm.

Experiments for optimization of media and other culture conditions for plantlet multiplication of black pepper have been started.

Experiments for optimization of acclimatization of pineapple, and black pepper plantlets and nursery management systems to produce elite seedlings have been started.