Global Climate Change Alliance Plus (GCCA+)
Scaling Up Pacific Adaptation (SUPA)

Learning from the past, preparing for the future

WATER SECURITY

RESILIENT AGRICULTURE

4th Segment

Practice Learning Series

27th-28th July 2022
Hosted by SPREP via Zoom

Wolf Forstreuter
SUPA Impacts GIS Specialist, Pacific GIS & Remote Sensing Council

Umai Basilius
Palau National Consultant, Palau Conservation Society

Wolf Forstreuter presents:
"Mapping impacts of climate change adaptation actions in the Pacific"

Umai Basilius presents:
"Application of the impacts Analysis Methodology on Water Security and Resilient Agriculture measures in Angaur and Babe/daob, Palau"

Calvin Johannes presents:
"Sharing the same mindset - Keeping the environment clean" Chief. Division of Public Health, Bureau of Public Health, Palau.

Segment 4: IN SUMMARY

Topic: Impacts Analysis (iA) methodology
Focus sector: Resilient agriculture & Water Security
Country: Palau

Attendance: 53 participants
Participation: Men 32, Women 21

Background of participants:

Country	Field of practice
Tonga, Fiji, Samoa, Cook Islands, FSM, Palau, Papua New Guinea, Vanuatu, New Zealand, Federated States of Micronesia, United States of America	Environmental data analysis, Project coordination, Consultancy, Community Research, Project implementation, Project planning, Food and Agriculture, Climate traditional knowledge, Socioeconomic coordination, Climate change adaptation, Program management, Community development, Knowledge management, Conservation

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SCALING UP PACIFIC ADAPTATION (SUPA)
Pacific Community Communauté du Pacifique
SPREP Secretariat of the Pacific Regional Environment Programme
USP THE UNIVERSITY OF THE SOUTH PACIFIC

Day one: Developing a Methodology to assess Climate Change Adaptation Intervention Impact: Palau's Story

Institutionalization of the Impact Assessment Methodology & Use of Impact Indicators

- Bureau of Agriculture will be using the Impacts Checklist tool and list of indicators to support its monitoring-evaluation for a JICA, ADB and the Government of Ireland-funded project.
- Palau Public Utilities Corporation keen on the light version of the iA methodology with applied experience of checklist for water security measures; monitoring of water systems in the other outlying states and in communities of Babeldaob.
- Learning from the iA experience thus potential to mainstream indicators as metric for national government plans, strategies; coordinate and report on the implementation of the Climate Change Policy Framework.
- Office of Project Management will use the indicators for pipeline projects in agriculture and water security targets.

Group discussions

Reflecting on Palau's field trial of the impacts Methodology, what are 1-2 key things you learnt from their experience?

- Engagement of different stakeholders starting from the planning phase towards finalising the impacts Methodology for Palau.
- Great to see that there is more engagement from different institutions in Palau who are willing to uptake and apply the Methodology.
- Palau's experience really revolved around institutionalising the Methodology. This is a key difference from the other three trials which operated more on the community level.
- Applaud Palau for enabling collaboration amongst agencies and partners. Organisations are interested in the tools.
- Extension of engagement with a wide group; Meeting with partners and collaborating to test and apply the Methodology on the field.

Day two: Sharing the same mindset - Keeping the environment clean: Palau

Reduce Community's Vulnerability to Water & Vector-borne diseases: Collaborative efforts between Div. of Environmental Health (DEH) and Environmental Quality Protection Board (EQPB) to design a community based approach in reducing risk to water & vector-borne diseases.

Group discussions

What is your country doing about reducing your community's vulnerability to water & vector borne diseases?

- Upgrading water supply treatments within the community e.g Project Namu, community nation-wide clean up and Wash awareness.
- Community and Fiji Health ministry led awareness campaigns to reduce water and vector borne diseases.
- Awareness program on these diseases and interventions that can be implemented.

How sustainable are these actions?

- These actions can be sustainable with participation from government, communities and NGOS through a continuing thread of awareness at all levels from schools; the use of social media, radio, TV, and print media ensuring its reach to all stakeholders.
- Given the sociocultural setting, strategies that promote integration of programs to community governance system are encouraged.
- Target school children and youth in tailored activities.

Figure 1 (left):
The trial experience of the impact analysis methodology in Palau.

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Sharing the same mindset - Keeping the environment clean

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Reduce Community's Vulnerability to Water & Vector-borne diseases

- Collaborative efforts between Div. of Environmental Health (DEH) and Environmental Quality Protection Board (EQPB) to design a community based approach in reducing risk to water & vector-borne diseases.

Target

- Airai
- Aimeliik
- Ngatpang
- Ngeremlengui
- Ngardmau

Objectives

1. Community will learn to detect and eliminate environmental hazards around their homes that can be a breeding ground for vectors.
2. Community will learn how to treat, test and maintain rain harvesting water for safer use
3. M-RIP Model

Community Approach Methods

1. Town Hall meetings: Project introduction & Situation Report on Water and Vector-borne cases

2. Trainings: Water & Vector-borne diseases prevention

Household Environmental Assessment & Education

Detecting and eliminating potential breeding ground for vectors, pesticides and rodents

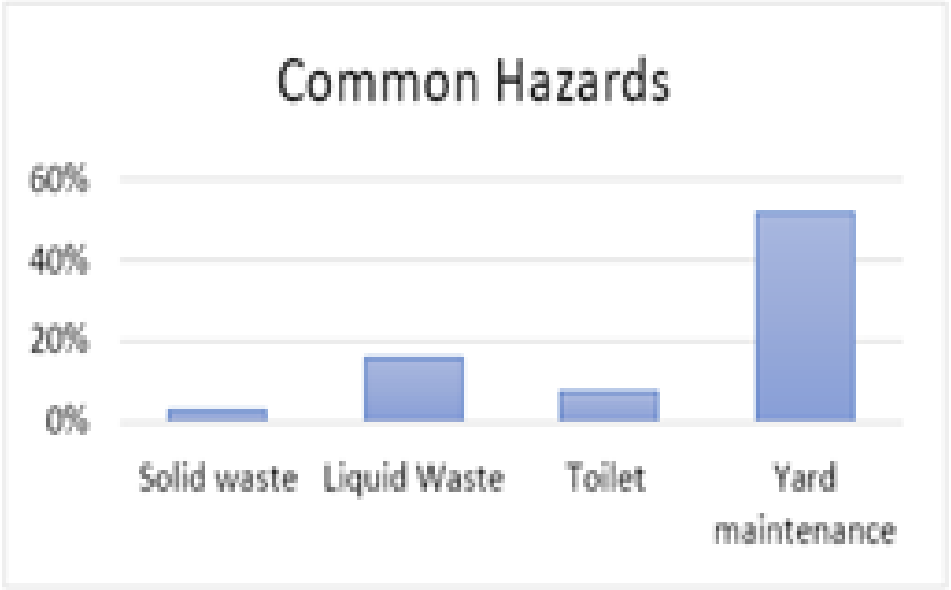
- Solid waste: abandoned junk equipment, tires, & yard maintenance
- Liquid waste: liquid waste management

Abandon junk equipment

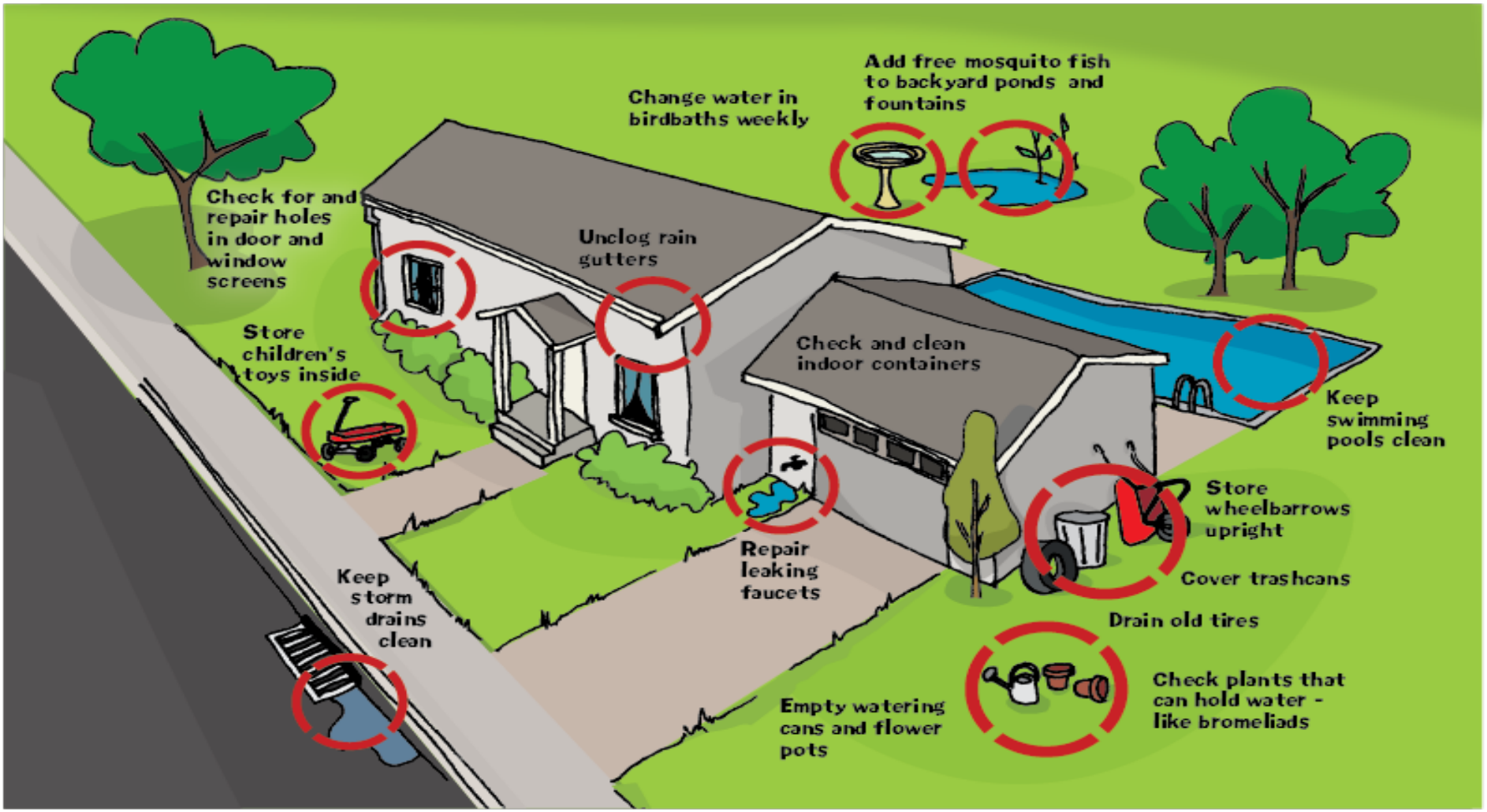
Open field drainage

Common Hazards

According to our data, it shows high percentage of household not properly have their Yard clean and maintained. As observed, there were also mosquito larva feeding from stagnant water from litters, trash, tires, flower bed/pot around the house. Solid waste materials have lowest percentage but have high probability for rodent infestation, mosquito resting site and lead poisoning.

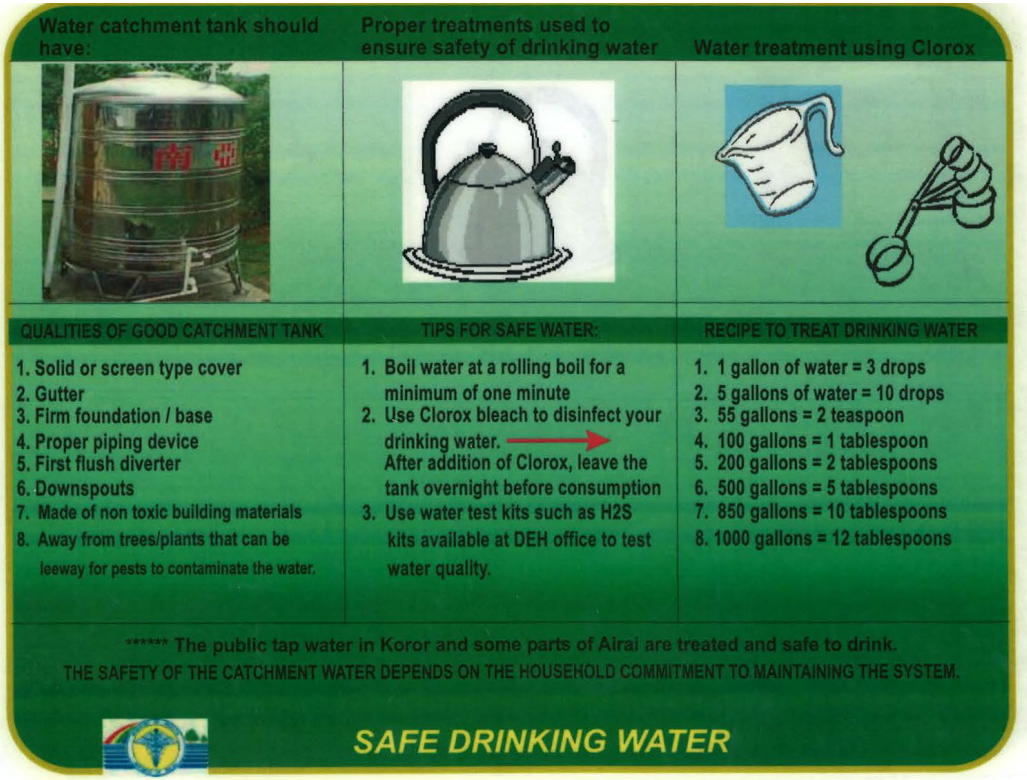


Corrective action



Water Safety & rain catchment maintenance

- 50 participant from five state received water treatment training & test kits
- Priority; State employees, PPUC water operators, school rep and Women's group

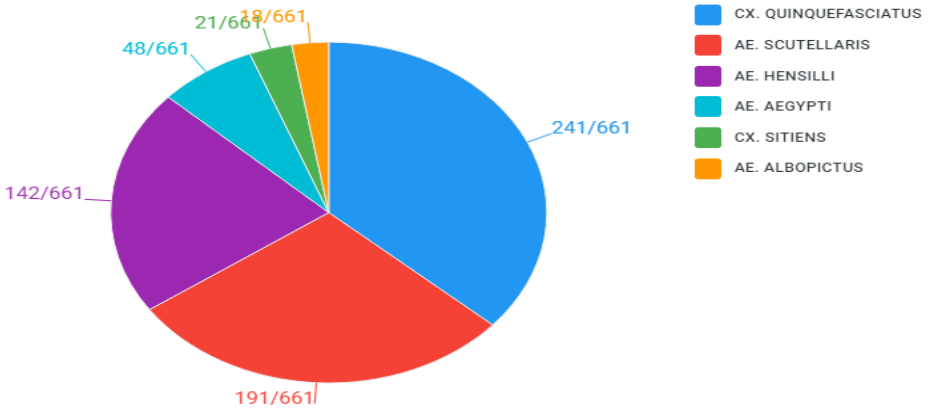


Mosquito Surveillance system

- To Develop mosquito surveillance system and monitoring in Palau
- To identify mosquito species with public health concern
- Improve response measures and increase community awareness

Mosquito analysis activities at Vector Lab

Mosquito species collected (Adult Occurrence), Palau



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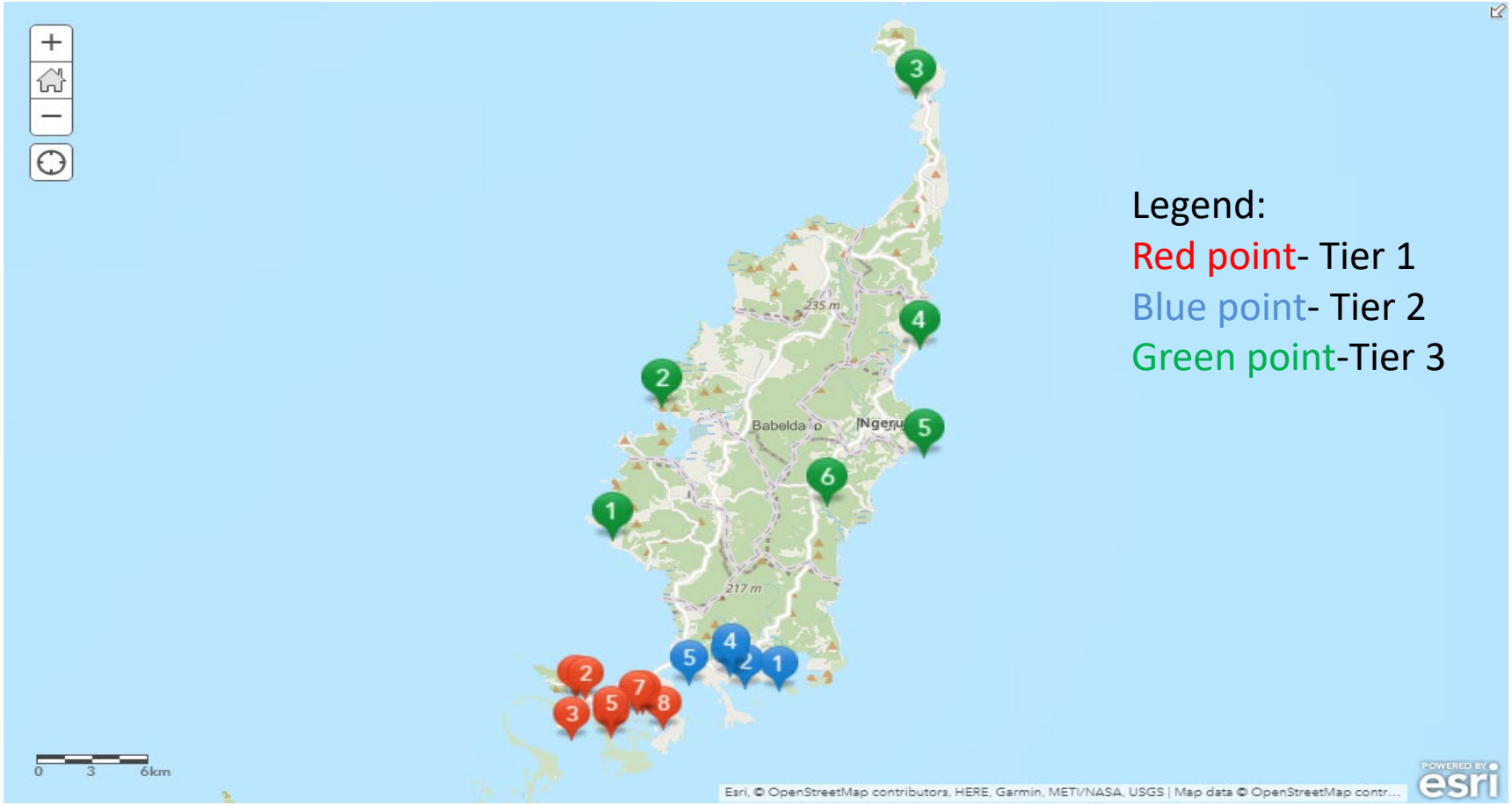
Establishing Mosquito Surveillance in Palau

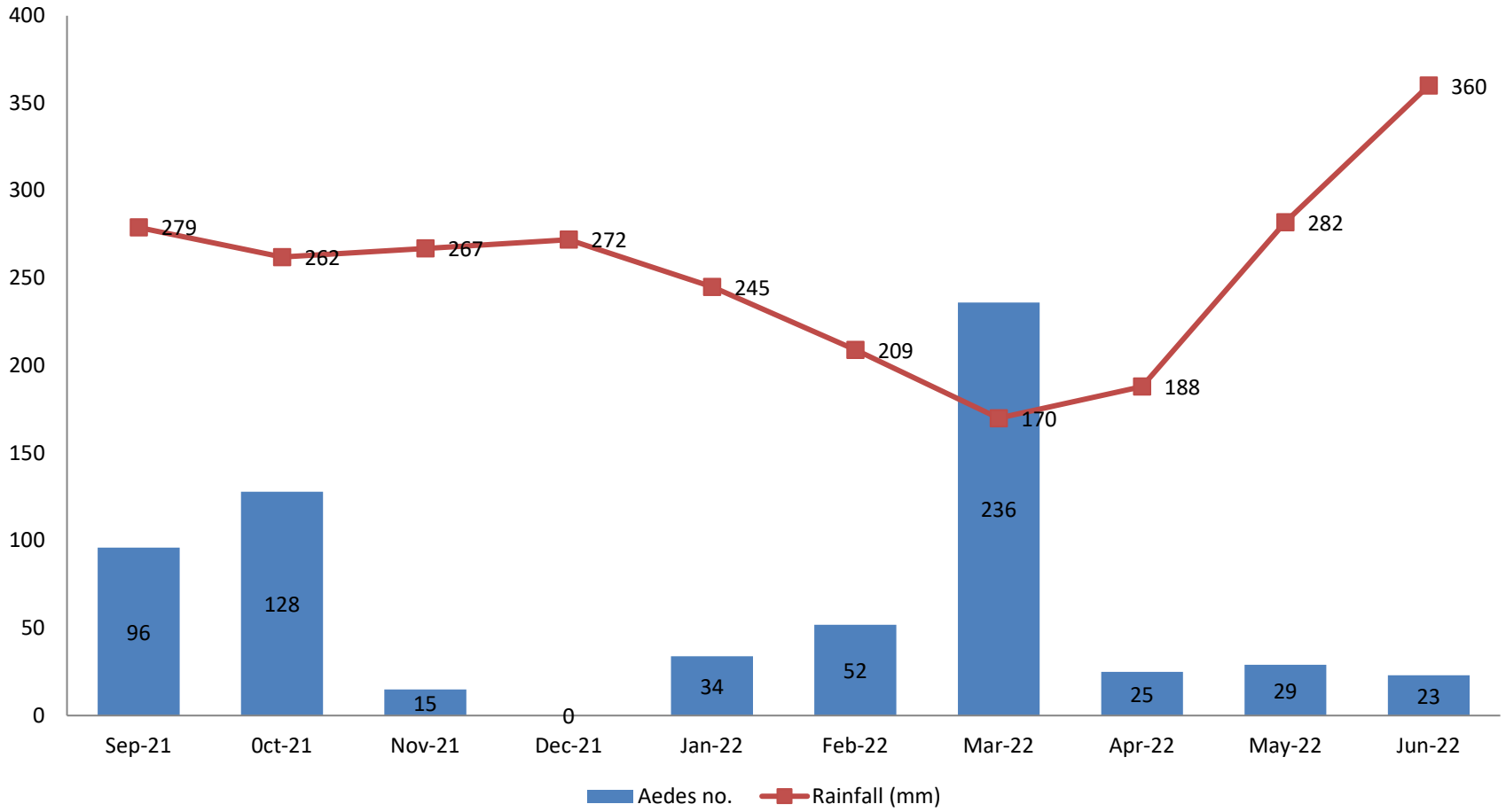
- Tier 1- Aedes sentinel sites within Koror/ dengue hotspot hamlet including port of entry Seaport (frequency of trappings will be few sampling per month)
- Tier 2- Aedes sentinel sites within Airai/ dengue cases hamlet including port of entry Airport (frequency of trappings at least once a month)
- Tier 3- Aedes sentinel sites within Babeldaob/ dengue cases location reported from last outbreak (frequency of trappings at least few samplings per year)

Mosquito Surveillance



Establishment and distribution of Aedes Sentinel Sites in Palau

Climate and Mosquito



Tier 1 Aedes surveillance collection in Koror vs Total Rainfall (climate)

COMMUNITY TRAINING
SPECIAL FORCE OPS

Mission M-RIP

TARGET ENEMY : *Aedes aegypti*
ENEMY SPECIALTY: DEADLY, EXPERT IN TRANSMIT
KILLER VIRUS (NO 1 Killer on The Planet)
MISSION RANK: HIGHLY IMPORTANCE
SPECIFIC TARGET : AEDES LARVAE/ EGGS
WHEREABOUT : Around the house (indoor/ outdoor)

INTRODUCTION TO M-RIP Concept

Individual/Community

M - MASSIVE

Each individual need to create a mindset that Aedes mosquito is an enemy, so we need a **MASSIVE** action from each every member from the community to at least check around the house at least once a week for breeding sites and eliminate them

Individual

R - REPETITIVE

The action of cleaning for breeding sites around the house need to be **REPEATED** every single week WITHOUT FAIL!!

Individual/Community

I - INTENSE

Following the routine clean up around the house every week, each member of the community needs to take an **INTENSE** action when they identify the mosquito breeding sites problem around the neighborhood (ex: Community Clean Up)

Individual/Community

P - PERSISTENCE

Combine all the efforts of solving the mosquito breeding sites problem (individual and community), and this new mind setting or attitude needs to be **PERSISTENCE**, so the action will keep continue in the community over and over again, ultimately it will prevent/ lower the chances of dengue outbreak in the community

Ked, Airai State

Result summary

• Total of 278 men and women participated and benefited from water & vector-borne project

• 138 participants attended Town hall meetings

•140 participants received trainings on water & vector

• 50 chlorine test kits provided to representative of the five states

• 41% females and 59% male community participants to this project

Mesulang!

SUPA Learning Series- Environmental Health

28 - 28 Jul 2022

Poll results

slido

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- Which country are you joining us from?
- Company trivia quiz
- Have there been outbreaks of dengue fever in your country
- What is your country doing about reducing your community's vulnerability to water & vector-borne diseases?
- How sustainable are these actions?
- What aspects of the Palau presentation do you think can be adopted in your countries?

Which country are you joining us from?

0 0 6

Multiple-choice poll

Company trivia quiz (1/2)

0 0 6

What year was the Paris Agreement on Climate change signed?

Multiple-choice poll

Company trivia quiz (2/2)

0 0 5

Is there a vaccine for dengue fever?

Yes ✓

40 %

No

60 %

Multiple-choice poll (Multiple answers)

Have there been outbreaks of dengue fever in your country

0 0 6

What is your country doing about reducing your community's vulnerability to water & vector-borne diseases?

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- Upgrading water supply treatments within the community. For example project Namu, community nation wide clean up and Wash awareness.
- Community and Fiji Health Ministry led awareness campaigns to reduce water and vector borne diseases
- Awareness program on these diseases and interventions that can be implemented by community to reduce. Promote clean hygiene and protect water sources
- Community outreach targeting areas that could lead to water and vector borne diseases, proper waste disposal, etc.
- WASH awareness and testing quality of water quality
- clean water tanks

How sustainable are these actions?

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- The World Mosquito Program is working in Suva and surrounding areas to protect communities from mosquito-borne diseases like dengue, Zika, chikungunya and yellow fever. A major component of this partnership involved community engagement which ensures sustainability.
- These actions can be sustainable with participation from government, communities and NGOS. On going awareness at all levels from schools, through social media, radio, tv, and print media, to reach all stakeholders.
- A bit challenging given the socio-cultural setting of our communities, however strategies are promote such that these programs are incorporated into community governance system. Another strategy is targeting school children and youths
- Needs routine/scheduled awareness to keep it sustainable

What aspects of the Palau presentation do you think can be adopted in your countries?

0 0 3

- In the Cook Islands we currently have ongoing Government and NGO programs in place, coordaining with household visits for water borne and vector borne diseases. Which is called Tutaka. This is carried out by health departments and other key stakeholders. On going awareness programs are also conducted, using all forms of media to involve the community and encourage on going behavior change
- Rapid assessment that was done to seasonal monitor behavior of mosquitoes Working voluntarily towards a community effort
- I think the whole process can be replicated in small communities throughout the pacific region.