



1. SEA CUCUMBER ACTIVITIES

1.1 FARM ACTIVITY

Sea cucumber farms in communities are monitored accordingly and when necessary. Makave and Talafo'ou communities are both co-managing their sea cucumber farms with the Ministry. Regular checking of the cages for any damages that needs repairing is necessary for the longevity of the farm. Because both communities have expanded their sea cucumber cages, more effort is required in maintaining their farms and monitoring the sea cucumbers when needed. After the distribution of juveniles, the aquaculture section then assists the community farms through providing equipment's for measurements and fixing of cages. Regular measurement of the sea cucumbers is also carried out by both the Ministry aquaculture team and the Community to capture and estimate growth and survival rate. Results from maintenance and monitoring will help with decision making in terms of requesting for more juveniles to their farm and determine what the next step is for the community.



Sea cucumber farm at Makave Community with some of its members

Makave SMA Community, Vava'u			
Stocking Date	# of Juvenile	Ave.length (cm)	Ave.weight (g)
14-Jul-23	2000 pcs	6.5	32.3

Sea cucumber juveniles transferred to Makave SMA Sea cucumber farm



1.2 MONITORING ACTIVITY

Monitoring of the juvenile sea cucumbers at the Sopu Mariculture is an ongoing activity carried out by the aquaculture team. Similar throughout monitoring process, it includes bi-monthly or monthly measurements of lengths and weight to keep track of their growth rate along with a twice-weekly feeding. The goal remains the same to distribute these juveniles to the SMA community sea cucumber farms.



The Sopu Mariculture.

Stock Juveniles from VO hatchery to Fisheries raceways			
Stocking Date	Raceways No.	Ave.length	Ave. weight
05.10.2023	C8	3.3	2.4
	C12	4.9	9.5
	C14	4.7	11.9
	C16	4	7.5
	C19	3.7	4.1

Raceway average measurements

In the meantime, the aquaculture team is preparing for maintenance & monitoring for the Talafo'ou Community while working together with the Vast Ocean (VO) in collecting and providing the Sopa Mariculture with more juvenile sea cucumbers in preparation for distribution to communities.





PEARL FARM ACTIVITIES

2.1 TRAINING WITH PEARL FARM ASSOCIATION

The aquaculture team travelled to Vava'u to conduct training, capacity building and extension services for the Vava'u Pearl Farm Association. The objective of the training is to offer support and assistance to the pearl farmers through;

1. Harvesting and grading of Mabé Pearls
2. Improve skills for existing farmers and training new farmers on farming practices and improved management techniques
3. Carving & designing mabe pearls

The training was successfully carried out for 10 days. A two days trip to the outer Island community of 'Otea and Ofu was conducted to continue the work on their farmers' pearl lines. The trip was a follow-up of seeding activities, maintenance and harvest from previous training the year before. The farmers were able to identify quality pearls and recognize the importance of proper seeding procedures. Good and high quality mabe pearls are the results of proper seeding. The staff also managed to showcase the farmers the right way of harvesting without damaging the quality of the pearls. Designing and carving activities were also carried out at the Pearl center as well as the other activities. This activity is important because it allows the pearl farmers to add value into his/her mabé pearls. A carver was present as the trainer, showcasing and teaching the farmers the different types of designs, and how to properly use all parts of the shell and sell as final products.



Harvesting pearl oyster: Ofu Community



Carving & designing at Vava'u Pearl Center



Seeding activities at Communities

Ofu pearl farmer



'Otea pearl farmer





1.2 SPAT COLLECTOR

Collecting spats from the wild using a spat collector activities is ongoing. Spat collector program continues to thrive in Vava'u with proper management and monitoring by the Vava'u aquaculture staff together with the pearl farmers. Harvesting & distribution of the Ministry's collector lines is carefully planned by the staff while farmers harvest from their own collector line and transfer to their pearl line as spat supply for their farms. The team at Vava'u managed to harvest a total of 50 juvenile spats for one of the farmers – Manase Naiteitei. Successful spats of more than 100 oysters were also harvested from the Ministry line to be distributed. The overarching goal of harvesting spat collectors is to distribute them to Pearl farmers, with careful planning by the team to ensure a balance between the number of spats collected and the numbers of farmers they can support.



Spats harvested from Ministry line in Vava'u

1.3 MONITORING FARM ACTIVITIES

Monitoring of the Ministry's Pearl main lines is ongoing in all Islands; Ha'apai, Vava'u & Tongatapu by each aquaculture team. Pearl farming monitoring data is also available for farmers at Ministry should they require their data. Individual & community pearl farmers are encouraged to monitor and clean their pearl lines once or twice a month because it contributes to the increase growth & survival rate of their pearl oysters. Preparation of pearl long lines to deploy is an important activity that also requires the community to work together to achieve.



Felemea community working together cleaning & monitoring their pearl lines



Preparation for deployment of line by the community

2. GIANT CLAM ACTIVITIES

3.1 MONITORING GIANT CLAM

Ongoing monitor of the juvenile clams at the Sopa Mariculture raceway tanks is regularly conducted by the aquaculture section. Monitoring includes cleaning tanks and thinning out the juvenile clams from inside the tanks and then distributing them to





additional tanks to allow more space for faster growth rate. This also includes regular checking for sea water flow and aeration and feeding.



Cleaning out juvenile tanks and transferring to additional tanks



3.2 GIANT CLAM BROODSTOCK

Monitoring of giant clam broodstocks is an ongoing activity carried out by the aquaculture section at the Fangatapu SMA. Pictures & table show details of current status of the broodstock.

Giant Clams Species	Numbers
<i>T. maxima</i> (kukukuku)	8
<i>T. squamosa</i> (matahele)	34
<i>T. derasa</i> (tokanoa)	29



4. POND & CAGE CULTURE ACTIVITIES

4.1 FIN-FISH (MULLET & TILAPIA)

Daily monitoring and feeding of the fish farm as well as measuring water quality at the pond and in the raceway tanks is ongoing carried out by the team.



5. OTHER ACTIVITIES

Promotion of aquaculture and awareness is an important activity. Hosting field trips from Schools here in Tongatapu and having them tour around the Mariculture is one of the best way to promote the aquaculture sector to the youths and young children of the country. Staff explains to the children the work that is being done and all the activities carried out and their great contribution to communities and livelihood for the families.

