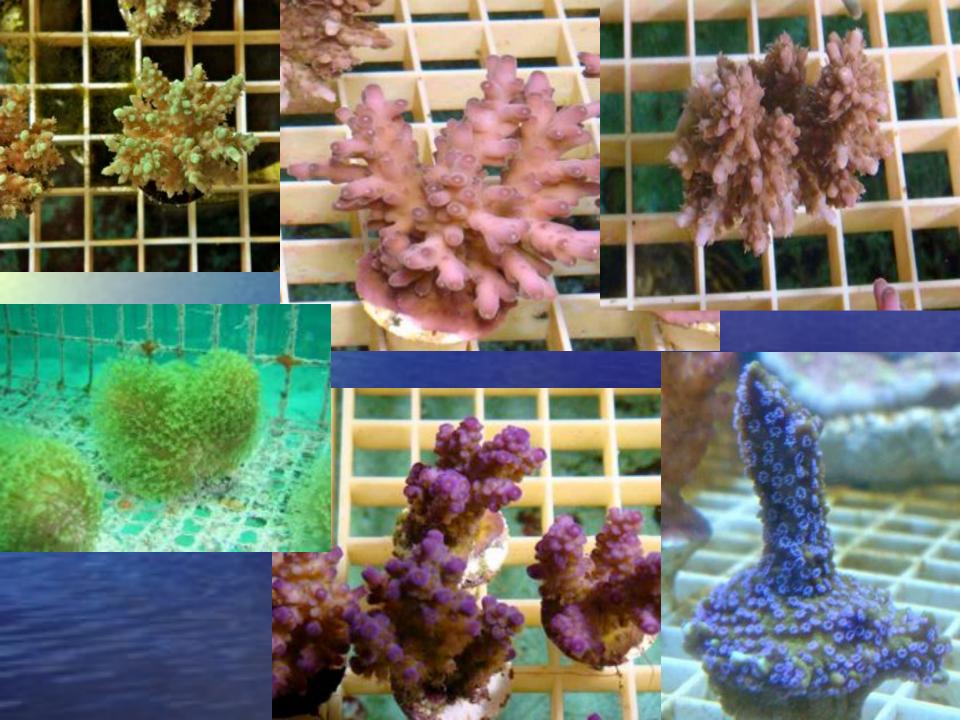
Marine Ornamental Farming

- Very simple fragmentation process for easy adoption by the farmers
- Products that have no edible or local value so farm interference/theft is minimal
- Few or no predators so cleaning and maintenance is minimal
- High value species suitable for air cargo export
- Allow for other cultural and subsistence activities
- Extremely low environmental impact







Broodstock

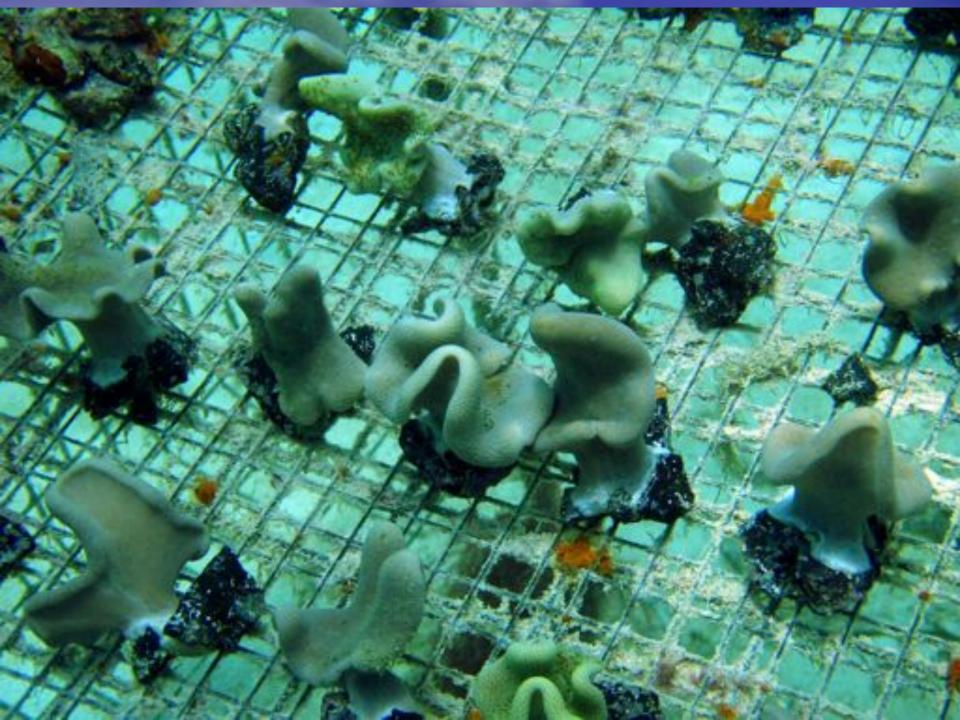
- Large colonies from which cuttings are taken
- Some regulations require all corals grown to be cut from second generation broodstock





























Sponge Farming

- Very simple fragmentation process for easy adoption by the farmers
- Products that have no edible or local value so farm interference/theft is minimal
- Few or no predators so cleaning and maintenance is minimal
- Lightweight species suitable for shipment by mail or air cargo
- Allow for other cultural and subsistence activities
- Extremely low environmental impact

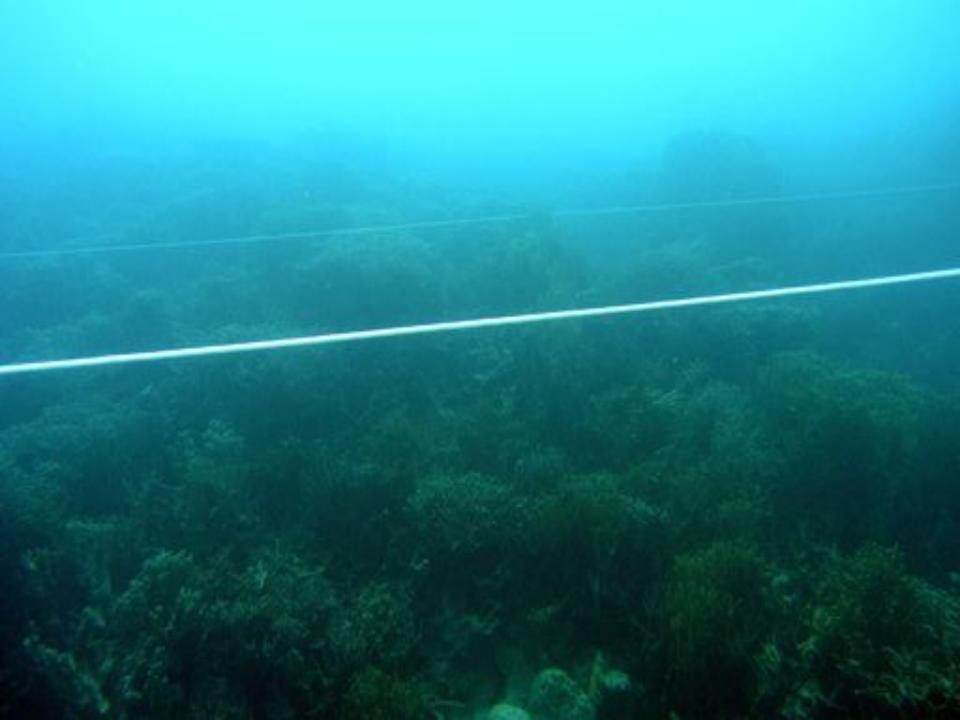
Sponge Species

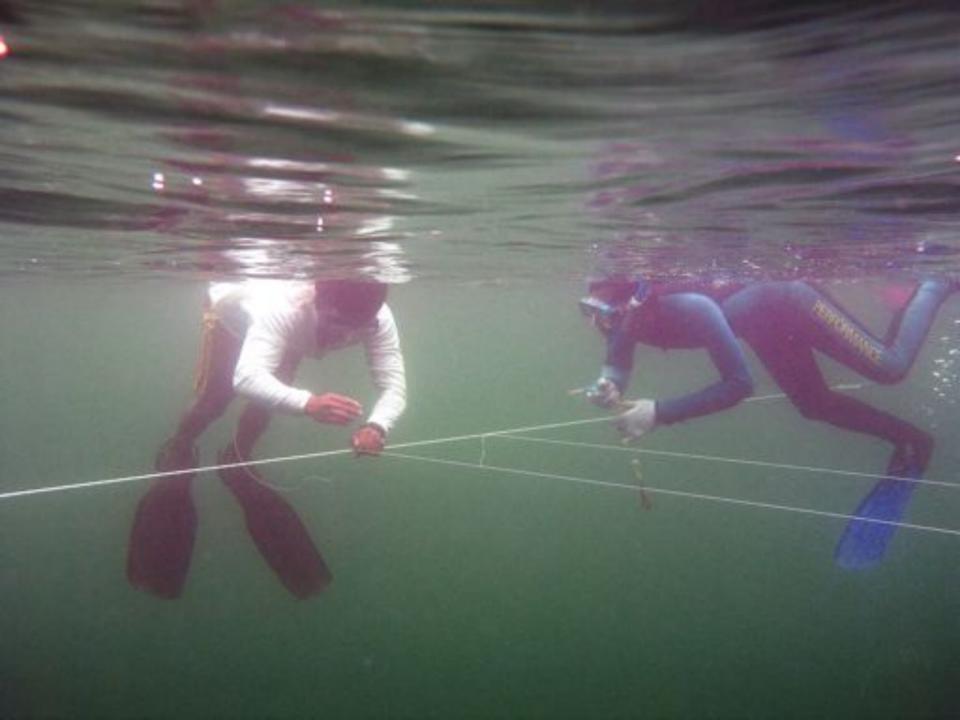
Two species of sponges are grown: Micronesian Wool sponge -Cosinoderma matthewsi. Larger and coarser. 2-2.5 year grow-out Facial sponge – Spongia matamata smaller and softer. 9-12 month growout



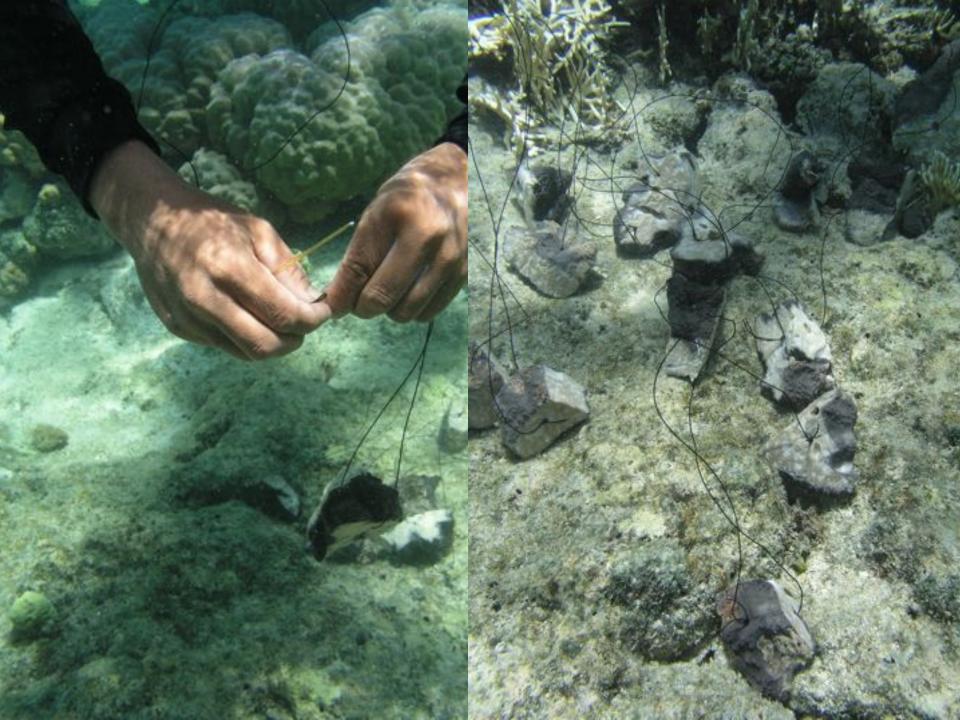






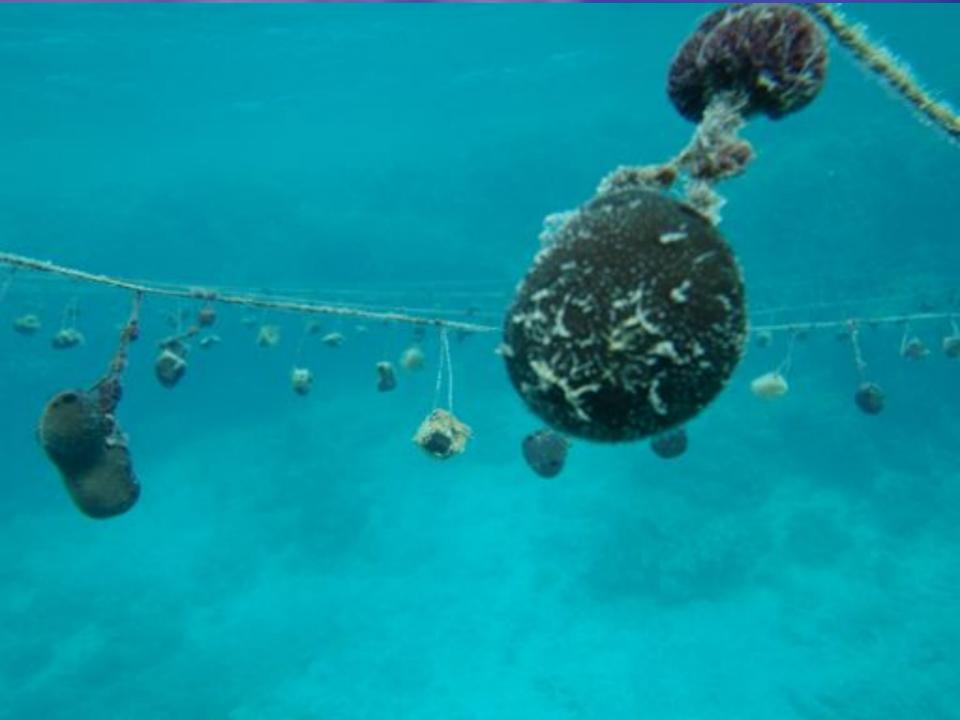




















Community Technology Transfer

- Individuals from fishing communities/ families are encouraged to begin farming
- MPA community members also encouraged
- Individuals, families or small groups run the farms. These are not village farms.
- Farmers receive all necessary training, equipment and supplies and broodstock to start their farm

Who are the Farmers

- Generally fishermen from poorer coastal communities
- Usually subsistence or semi-subsistence
- Many younger people
- Often unemployed or underemployed
- Selected through word of mouth or interest
- Currently work with over 50 individuals



What are some constraints

- Slow uptake by farmers, suspicion of new technologies and development agencies (private and public), other opportunities
- Slow grow-out time for wool sponges
 2-2.5 years
- No history of organized farming, also people don't eat these products so it is hard for them to imagine why they should grow it.
- Cultural obligations

What has worked

- Constant communication and training with farmers through meetings and site visits
- Growing the industry slowly to avoid disappointment for farmers
- Providing necessary resources for farmers
- Communication with government and NGO partners
- Building strong private sector marketing links
- Adopting a long term strategy to training and funding
- Ensuring our farmers know their obligations
- Incentivizing farmers through pro-rated payments



